Pasco County Sheriff's Office

Forensic-Training-Shoot House-Hangar

Lucy Dobies Court - Land O' Lakes, Florida 34637

10 PRELIMINARY SITE PLAN / CONSTRUCTION PLAN / STORMWATER PLAN AND REPORT

Owner:
PASCO COUNTY FACILITIES MANAGEMENT
7220 Osteen Road
New Port Richey, Florida 34653
Phone: (727) 834-3292
Andrew Baxter - abaxter@pascocountyfl.org 1

Developer:
PASCO COUNTY SHERIFF'S DEPARTMENT
8700 Citizens Drive
New Port Richey, Florida 34654
Phone: (727) 844-7763
Karl Craford - kcrawford@pascosheriff.org 1

Engineer:
J. S. NAGAMIA, P.E.
11104 NORTH 61ST STREET
TEMPLE TERRACE, FLORIDA 33617
Phone: (813) 988-0727
J.S. Nagamia - nagamj@yahoo.com 1

Surveyor:
BAY AREA SURVEYING AND MAPPING
10651 Jacamar Drive
New Port Richey, Florida 34654
Phone: (727) 856-9690
Richard Shoun - info@bayareasurveying.com 1

Location Map:

SECTION 15, TOWNSHIP 25 SOUTH, RANGE 18 EAST

Index of Drawings:

THE PROPOSED DRAINAGE PLAN WAS BASED ON THE EXISTING FIELD CONDITIONS OF THE ABUTTING PROPERTY.

PRELIMINARY / CONSTRUCTION STORMWATER MANAGEMENT PLAN
SIMULTANEOUS SUBMITTAL

J. S. NAGAMIA, P.E.

11104 NORTH 61ST STREET
TEMPLE TERRACE, FLORIDA 33617
PHONE: (813) 988-0727

JAMAL S. NAGAMIA CERTIFICATE No. 19241 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jamal Nagamia

Digitally signed by Jamal Nagamia
Date: 2021.05.06 11:05:52 -04'00'

PCU#18-103.04

J. S. NAGAMIA, P.E.
11104 NORTH 61ST STREET
TEMPLE TERRACE, FLORIDA 33617
PHONE: (813) 988-0727

J.S.NAGAMIA, P.E.
FL. LIC. #19241

DATE

NO.	DATE	REVISION
1	01.14.18	COUNTY AND SWFWMD REVIEW
10	12.18.19	COUNTY REVIEW

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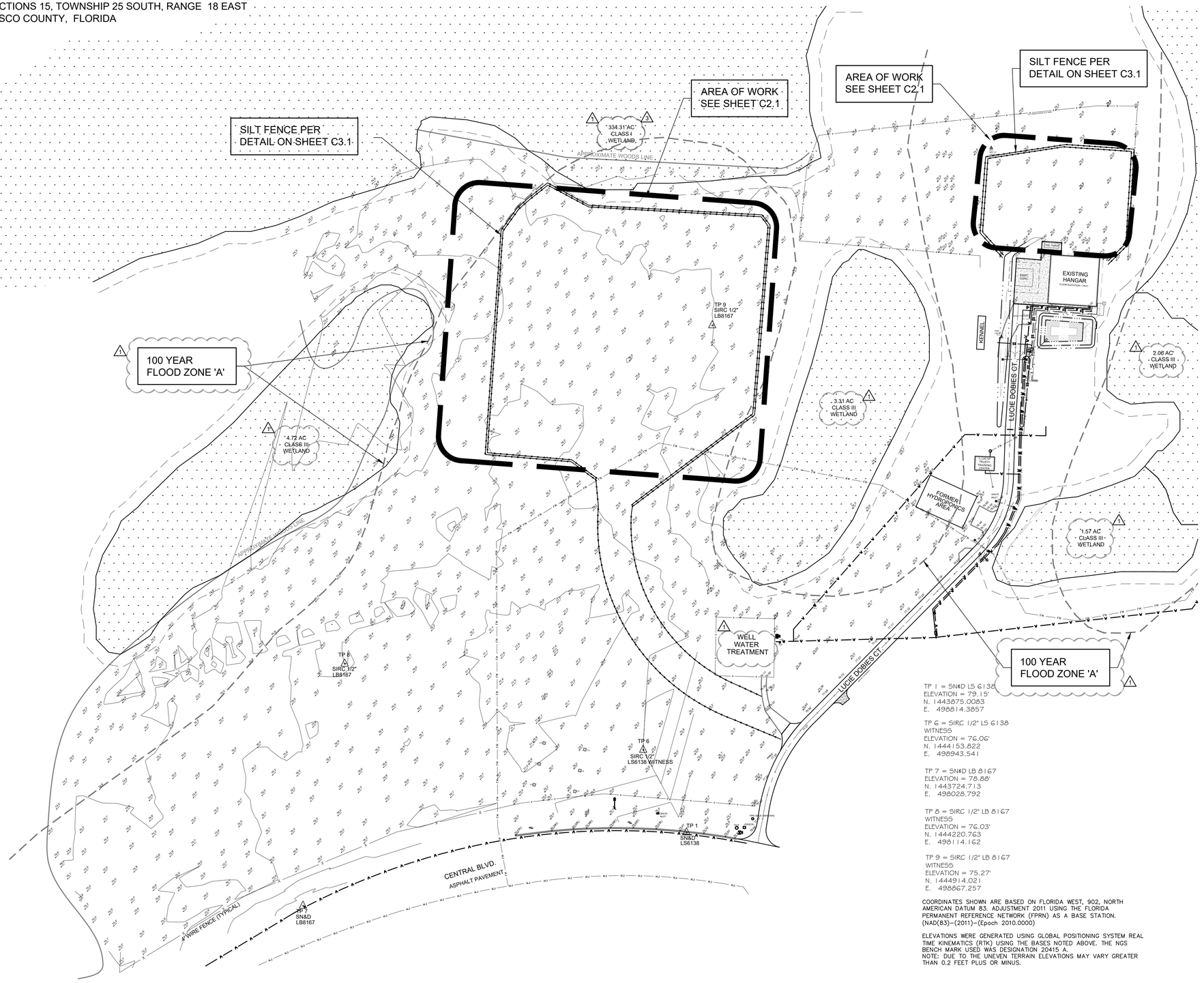
T1.0
TITLE SHEET

SECTIONS 15, TOWNSHIP 25 SOUTH, RANGE 18 EAST
PASCO COUNTY, FLORIDA



TP 1 = SN&D LS 6138
ELEVATION = 79.15'
N. 1443875.0083
E. 498814.3857

TP 6 = SIRC 1/2" LS 6138
WITNESS
ELEVATION = 76.06'
N. 1444153.822
E. 498943.541

TP 7 = SN&D LB 8167
ELEVATION = 78.88'
N. 1443724.713
E. 498028.792

TP 8 = SIRC 1/2" LB 8167
WITNESS
ELEVATION = 76.03'
N. 1444220.763
E. 498114.162

TP 9 = SIRC 1/2" LB 8167
WITNESS
ELEVATION = 75.27'
N. 1444914.021
E. 498867.257

COORDINATES SHOWN ARE BASED ON FLORIDA WEST, 902, NORTH AMERICAN DATUM 83. ADJUSTMENT 2011 USING THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN) AS A BASE STATION. (NAD(83)-(2011)-(Epoch 2010.0000)

ELEVATIONS WERE GENERATED USING GLOBAL POSITIONING SYSTEM REAL TIME KINEMATICS (RTK) USING THE BASES NOTED ABOVE. THE NGS BENCH MARK USED WAS DESIGNATION 20415 A.
NOTE: DUE TO THE UNEVEN TERRAIN ELEVATIONS MAY VARY GREATER THAN 0.2 FEET PLUS OR MINUS.

LEGAL DESCRIPTION

THE NORTH 1010 FT OF SOUTH 2260 FT OF EAST 3030 FT & THE SOUTH 1250 FT OF SECTION 15 LYING EAST OF US HWY 41 BEING MEASURED AT RIGHT ANGLES TO THE SOUTH & EAST BOUNDARY OF SECTION 15 EXC COM AT MOST WLY CORNER OF SOUTH 1250 FT OF SECTION LYING EAST OF US HWY 41 FOR POB TH ELY 460 FT ALONG NORTH LINE OF SOUTH 1250 FT FOR PT A TH RETURN TO POB TH SELY ALONG R/W US HWY 41 275 FT TH NELY 350 FT MOL TO PT A SUBJECT TO PERPETUAL WELLSITE EASEMENT PER OR 4997 PG 1487 & SUBJECT TO PERPETUAL WELLSITE EASEMENT PER OR 4997 PG 1498 LESS THAT POR KNOWN AS CONNERTON COMMERCE PARK PCL 4B PER OR 7598 PG 1526 OR 1716 PG 467

SURVEYOR NOTES

1. THIS SURVEY MAP AND/OR REPORT OR THE COPIES HEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES ARE PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
2. BASIS OF BEARINGS: ASSUMED BEARING OF N29°55'30"E, ALONG THE TRAVERSE LINE BETWEEN TRAVERSE POINTS "A" & "B".
3. THIS OFFICE HAS NOT ABSTRACTED THIS FOR ANY RECORDED CLAIMS OF TITLE EASEMENTS OR RESTRICTIONS. THE PRESENCE OR ABSENCE OF ANY SUCH CLAIMS IS NOT CERTIFIED HEREON.
4. NO UNDERGROUND IMPROVEMENTS OR UTILITIES WERE LOCATED EXCEPT THOSE SHOWN HEREON.
5. ELEVATIONS BASED ON NORTH AMERICAN VERTICAL DATUM 1988.
6. UNLESS NOTED OTHERWISE, NO UNDERGROUND FOUNDATIONS LOCATED.

LEGEND

(C)	CALCULATED MEASUREMENT	ID	IDENTIFICATION
(D)	DESCRIPTION MEASUREMENT	LB	LICENSED BUSINESS NUMBER
(F)	FIELD MEASUREMENT	LP	LIGHT POLE
(P)	PLAT MEASUREMENT	OHW	OVERHEAD WIRE
(R)	RECORD MEASUREMENT	PSM	PROFESSIONAL SURVEYOR AND MAPPER
A/C	AIR CONDITIONER	R/W	RIGHT-OF-WAY
CLF	CHAIN LINK FENCE	TYP	TYPICAL
CONC	CONCRETE	UP	UTILITY POLE
ELEV	ELEVATION	WM	WATER METER
HYD	FIRE HYDRANT	WV	WATER VALVE

EXISTING CONDITIONS PLAN
SCALE: 1"= 100'

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FL. LIC. #19241

DATE

NO.	DATE	REVISION
1	04.09.10	PER SWFWMD AND COUNTY REVIEW
3	08.24.18	COUNTY REVIEW

Pasco County Sheriff's Office

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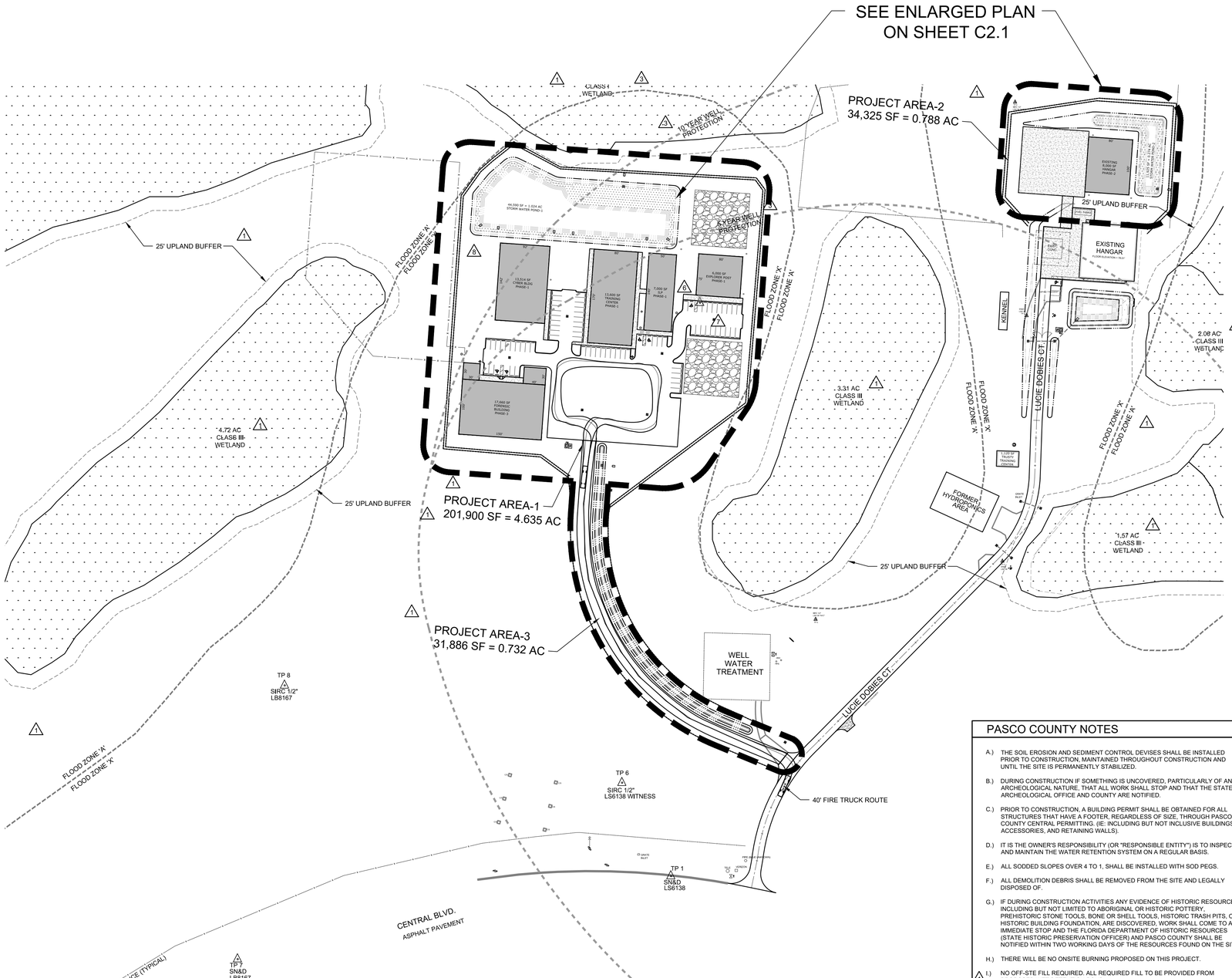
C1.0
EXISTING CONDITIONS PLAN

SECTIONS 15, TOWNSHIP 25 SOUTH, RANGE 18 EAST
PASCO COUNTY, FLORIDA



OVERALL SITE PLAN
SCALE: 1"= 100'

PROJECT DATA

PROJECT NAME: PASCO COUNTY SHERIFF'S OFFICE
FORENSIC-TRAINING-SHOOT HOUSE-HANGAR

OWNER: PASCO COUNTY FACILITIES MANAGEMENT
7220 OSTEEN ROAD
NEW PORT RICHEY, FLORIDA 34653
PHONE: (727) 834-3292
ANDREW BAXTER - abaxter@pascocountyfl.net

DEVELOPER: PASCO COUNTY SHERIFF'S OFFICE
8700 CITIZEN DRIVE
NEW PORT RICHEY, FLORIDA 34654
PHONE: (727) 844-7763
KARL CRAWFORD - kcrawford@pascosheriff.org

ENGINEER: J.S. NAGAMIA, P.E.
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TEMPLE TERRACE, FLORIDA 33617
PHONE: (813) 988-0727
J.S. NAGAMIA - nagamj@yahoo.com

SITE DATA

PARCEL I.D. #: 15-25-18-0000-00300-0000 (± 189.3 ACRES)

EXISTING PROPERTY USE: PASCO COUNTY SHERIFF HELICOPTER HANGAR / LANDING PAD

PROPOSED PROPERTY USE: TRAINING COMPLEX / HANGAR
CONDITIONAL USE CU10-27 APPROVED APRIL 27, 2010

ZONING:	FUTURE LAND USE:
SITE: A-C / MPUD	P/SP
NORTH: MPUD	NT
SOUTH: A-C / MPUD	P/SP/NT
WEST: C-2, A-R, R-1	ROR
EAST: A-C	P/SP

FLOOD ZONE: THIS PROJECT IS LOCATED IN FLOOD ZONE 'X' AND 'A' ACCORDING TO F.I.R.M. NUMBER 12101 C 0240 F, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, EFFECTIVE DATE: SEPTEMBER 26, 2014.

NEW BUILDING AREA:

PHASE-1:	TRAINING CENTER	= 13,600 SF
PHASE-1:	ILP BUILDING	= 7,000 SF
PHASE-1:	CYBER BUILDING	= 13,514 SF
PHASE-1:	EXPLORER POST	= 6,000 SF
PHASE-2:	HELICOPTER HANGAR	= 8,000 SF
PHASE-3:	FORENSIC BUILDING	= 17,660 SF
TOTAL NEW BUILDING AREA		= 65,774 SF

EXISTING BLDG AREA:

SHERIFF'S OFFICE GARAGE	= 10,780 SF
QUONSET HUT STORAGE	= 1,008 SF
HELICOPTER HANGAR	= 10,000 SF
K9 BUILDING	= 720 SF
TRUSTY TRAINING CENTER	= 1,120 SF
OFFICE BUILDING	= 21,775 SF
TOTAL EXISTING BUILDING AREA	= 45,403 SF

FLOOR AREA RATIO: 1.901 AC / 189.3 AC = 0.01

BUILDING HEIGHT: SINGLE STORY - 22'-0" MAX.

PROJECT AREA - 1: (TOTAL BASIN AREA = 4.635 ACRES)

- BUILDING	1.130 AC	24.3 %
- PAVING/SIDEWALKS	1.384 AC	29.9 %
- LANDSCAPING	1.097 AC	23.7 %
- POND AREA	1.024 AC	22.1 %
- IMPERVIOUS AREA	2.514 AC	54.2 %
- PERVIOUS	2.121 AC	45.8 %

PROJECT AREA - 2: (TOTAL PROJECT AREA = 0.853 ACRES)

- BUILDING	0.184 AC	21.6 %
- PAVING/SIDEWALKS	0.330 AC	38.7 %
- LANDSCAPING	0.065 AC	7.6 %
- POND AREA	0.274 AC	32.1 %
- IMPERVIOUS AREA	0.604 AC	92.4 %
- PERVIOUS	0.065 AC	7.6 %

PROJECT AREA - 3: (TOTAL PROJECT AREA = 0.732 ACRES)

- PAVING/SIDEWALKS	0.416 AC	56.8 %
- LANDSCAPING	0.078 AC	10.7 %
- POND AREA	0.238 AC	32.5 %
- IMPERVIOUS AREA	0.416 AC	56.8 %
- PERVIOUS	0.316 AC	43.2 %

UTILITY COMPANIES:

WATER:	PASCO COUNTY UTILITIES
IRRIGATION:	PASCO COUNTY UTILITIES
SEWER:	PASCO COUNTY UTILITIES
FIRE PROTECTION:	PASCO COUNTY FIRE DEPARTMENT

WETLAND INVENTORY

CUMULATIVE ACREAGE TOTAL = 345.97 AC
334.31 AC IS MOSTLY OFF-SITE TO THE NORTH

- CATEGORY I = ± 334.31.00 AC
- CATEGORY II = 0.00 AC
- CATEGORY III = ± 11.66 ON-SITE

DEVELOPABLE ACREAGE = 189.3 AC - 11.66 AC = 177.64 AC

PASCO COUNTY NOTES

A.) THE SOIL EROSION AND SEDIMENT CONTROL DEVISES SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL THE SITE IS PERMANENTLY STABILIZED.

B.) DURING CONSTRUCTION IF SOMETHING IS UNCOVERED, PARTICULARLY OF AN ARCHEOLOGICAL NATURE, THAT ALL WORK SHALL STOP AND THAT THE STATE ARCHEOLOGICAL OFFICE AND COUNTY ARE NOTIFIED.

C.) PRIOR TO CONSTRUCTION, A BUILDING PERMIT SHALL BE OBTAINED FOR ALL STRUCTURES THAT HAVE A FOOTER, REGARDLESS OF SIZE, THROUGH PASCO COUNTY CENTRAL PERMITTING. (IE: INCLUDING BUT NOT INCLUSIVE BUILDINGS, ACCESSORIES, AND RETAINING WALLS).

D.) IT IS THE OWNER'S RESPONSIBILITY (OR "RESPONSIBLE ENTITY") IS TO INSPECT AND MAINTAIN THE WATER RETENTION SYSTEM ON A REGULAR BASIS.

E.) ALL SODDED SLOPES OVER 4 TO 1, SHALL BE INSTALLED WITH SOD PEGS.

F.) ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF.

G.) IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF HISTORIC RESOURCES, INCLUDING BUT NOT LIMITED TO ABORIGINAL OR HISTORIC POTTERY, PREHISTORIC STONE TOOLS, BONE OR SHELL TOOLS, HISTORIC TRASH PITS, OR HISTORIC BUILDING FOUNDATION, ARE DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND THE FLORIDA DEPARTMENT OF HISTORIC RESOURCES (STATE HISTORIC PRESERVATION OFFICER) AND PASCO COUNTY SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE RESOURCES FOUND ON THE SITE.

H.) THERE WILL BE NO ONSITE BURNING PROPOSED ON THIS PROJECT.

I.) NO OFF-STE FILL REQUIRED. ALL REQUIRED FILL TO BE PROVIDED FROM PROPOSED WET DETENTION POND.

J.) IF DURING CONSTRUCTION ACTIVITIES, ANY EVIDENCE OF THE PRESENCE OF STATE OR FEDERALLY PROTECTED PLANT AND/OR ANIMAL SPECIES IS DISCOVERED, PASCO COUNTY AND APPLICABLE AGENCIES SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE PLANT AND/OR ANIMAL SPECIES FOUND ON THE SITE. ALL WORK IN THE AFFECTED AREA SHALL COME TO AN IMMEDIATE STOP UNTIL ALL PERTINENT PERMITS HAVE BEEN OBTAINED, AGENCY WRITTEN AUTHORIZATION TO COMMENCE ACTIVITIES HAS BEEN GIVEN, OR ENLESS COMPLIANCE WITH STATE AND FEDERAL GUIDELINES CAN BE DEMONSTRATED.

K.) THE UPLAND BUFFER LINE SHALL BE CLEARLY FIELD DEMARCATED PRIOR TO ANY CONSTRUCTION ACTIVITIES.

L.) NO CONSTRUCTION ACTIVITIES INCLUDING: CLEARING, GRADING, GRUBBING SHALL OCCUR WITHIN THE WETLAND UPLAND BUFFER AS DEPICTED ON THE APPROVED PROJECT CONSTRUCTION PLANS.

GEOLOGICAL HAZARD NOTES

SHOULD ANY NOTICEABLE SOIL SLUMPING OR SINKHOLE FORMATION BECOME EVIDENT, THE APPLICANT /DEVELOPER SHALL IMMEDIATELY NOTIFY THE COUNTY, TAMPA BAY WATER (TBW), AND SWFWMD, AND ADOPT ONE OR MORE OF THE FOLLOWING PROCEDURES AS DETERMINED TO BE APPROPRIATE BY THE COUNTY AND SWFWMD:

1. IF THE SLUMPING OR SINKHOLE FORMATION BECOMES EVIDENT BEFORE OR DURING CONSTRUCTION ACTIVITIES, STOP ALL WORK (EXCEPT FOR MITIGATION ACTIVITIES) IN THE AFFECTED AREA AND REMAIN STOPPED UNTIL THE COUNTY AND SWFWMD APPROVE RESUMING CONSTRUCTION ACTIVITIES.

2. TAKE IMMEDIATE MEASURES TO UNSURE NO SURFACE WATER DRAINS INTO THE AFFECTED AREAS.

3. VISUALLY INSPECT THE AFFECTED AREA.

4. EXCAVATE AND BACKFILL OR GROUT AS REQUIRED TO FILL THE AFFECTED AREA AND PREVENT FURTHER SUBSIDENCE.

5. USE SOIL REINFORCEMENT MATERIALS IN THE BACK FILLING OPERATION, WHEN APPROPRIATE.

6. IF THE AFFECTED AREA IS IN THE VICINITY OF A WATER RETENTION AREA, MAINTAIN A MINIMUM DISTANCE OF TWO FEET FROM THE BOTTOM OF THE RETENTION POND TO THE SURFACE OF THE LIME ROCK OR KARST CONNECTION.

7. IF THE AFFECTED AREA IS IN THE VICINITY OF A WATER RETENTION POND AREA AND THE ABOVE METHODS DO NOT STABILIZE THE COLLAPSE, RELOCATE THE RETENTION AREA.

8. DISCHARGE OF STORM WATER INTO DEPRESSIONS WITH DIRECT OR DEMONSTRATED HYDRAULIC CONNECTION TO THE AQUIFER SHALL BE PROHIBITED.

SITE DEVELOPMENT CONSTRUCTION REQUIREMENTS.

THE SITE SHALL BE INITIALLY GRADED TO WITHIN 12 INCHES OF THE FINAL GRADE. WHERE FILL IS PROPOSED IT SHALL BE PLACED IN COMPLIANCE WITH THE GEOTECHNICAL / GEOLOGICAL ENGINEERING REPORT RECOMMENDATIONS (INCLUDING ANY LIFT DEPTHS RECOMMENDED) AND COMPACTED TO A MINIMUM DENSITY OF 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. DENSITY TESTS TO CONFIRM COMPACTION SHALL BE REQUIRED WITHIN THE BUILDING PAD AREA, BEFORE THE NEXT LIFT IS PLACED.

UPON COMPLETION OF THE SITE DEVELOPMENT CONSTRUCTION, A PROFESSIONAL ENGINEER SHALL PROVIDE A CERTIFICATION TO PASCO COUNTY THAT THE PROJECT, INCLUDING EACH PAD AREA, COMPLIES WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL / GEOLOGICAL ENGINEERING REPORT.

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TEMPLE TERRACE, FLORIDA 33617
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FL. LIC. #19241
DATE

NO.	DATE	REVISION
1	01.14.18	COUNTY AND SWFWMD REVIEW
3	09.24.18	COUNTY REVIEW
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6	03.28.19	OWNER MODIFICATION
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8	07.23.19	OWNER MODIFICATION
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10	12.19.19	COUNTY REVIEW

Pasco County Sheriff's Office

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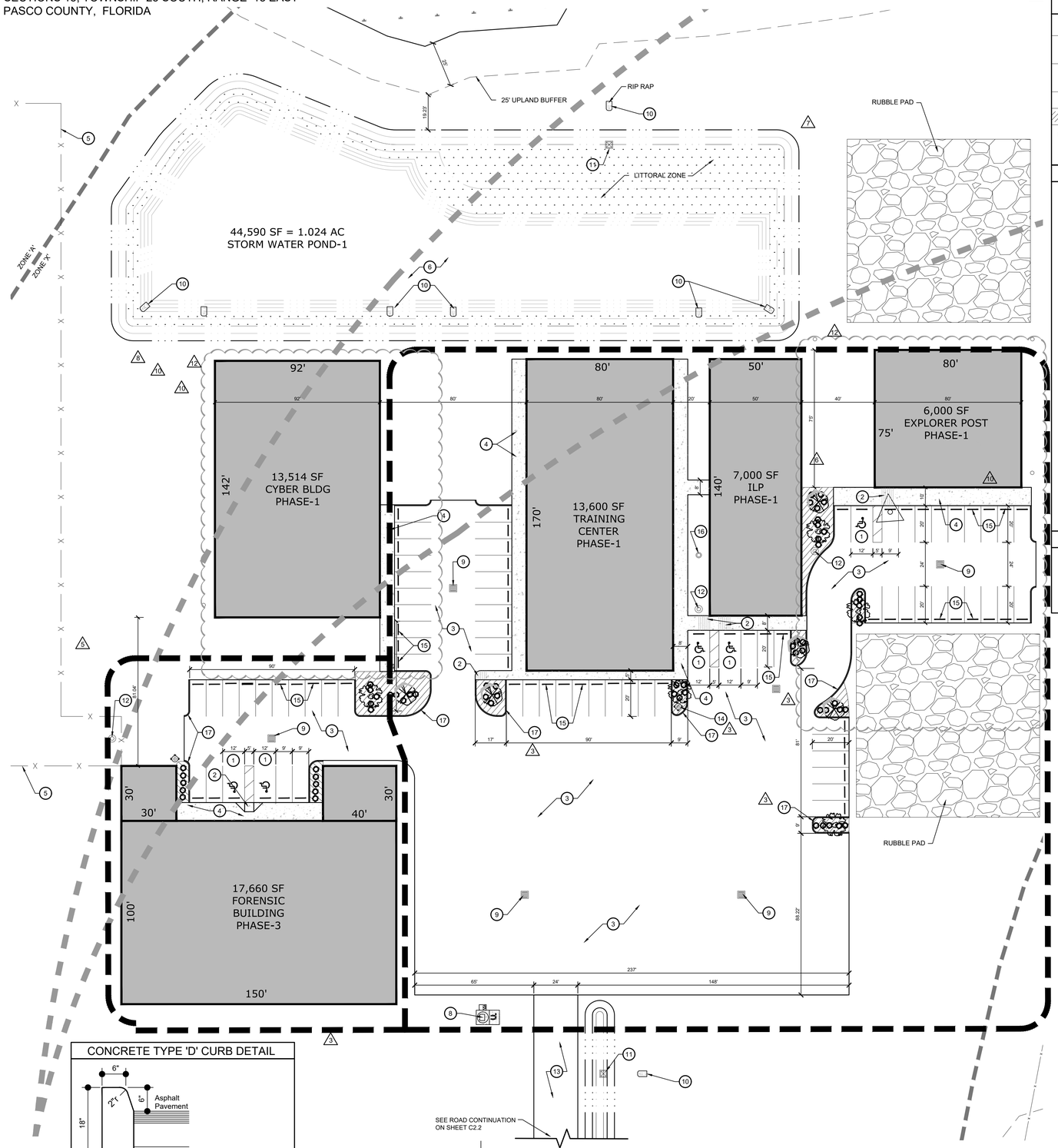
C2.0
SITE PLAN

SECTIONS 15, TOWNSHIP 25 SOUTH, RANGE 18 EAST
PASCO COUNTY, FLORIDA



PLANTING LEGEND

PLANTS	NAME	QTY	DT	NF	DESCRIPTION
	Magnolia grandiflora (SOUTHERN MAGNOLIA)	5	YES	YES	8' tall (min); 2" caliper (min)
	Ilex apica (AMERICAN HOLLY)	5	YES	YES	8' tall (min); 2" caliper (min)
	Viburnum suspensum (SANDANKWA VIBURNUM)	60	YES	YES	18" tall (min); 3 gal. container (min); plant 24" O.C.
	Guniperus spp. (JUNIPER)	200	YES	YES	1 gal. container (min); plant 24" O.C.

NOTE:
1. ALL PLANTS TO BE FLORIDA No. 1 GRADE OR BETTER.
2. ALL PLANTS TO BE MINIMUM SIZE SHOWN ABOVE UNLESS NOTED OTHERWISE.
3. MULTIPLE TRUNK TREES ARE TO BE (MIN.) 3 TRUNKS, 1" EA., 6' TALL.

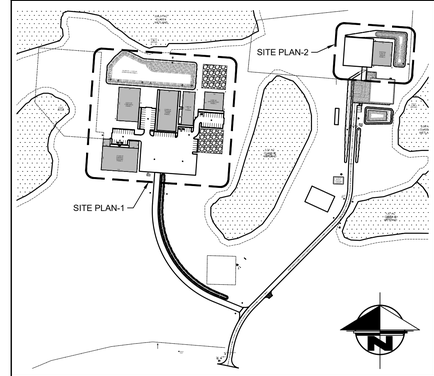
PASCO COUNTY LANDSCAPE NOTES

1. Maintenance Responsibility. The County is not responsible for maintenance of any landscaping unless approved through a County maintenance agreement. (LDC 905.2-C.1.a)
2. Clear-Sight Triangle. Where a driveway/accessway intersects a road right-of-way or where two (2) road rights-of-way intersect, vegetation, structures, and non-vegetative visual screens shall not be located so as to interfere with the clearsight triangle as defined in this Code or the Florida Department of Transportation, Manual of Uniform Minimum Standards, most recent edition (Green Book), whichever is more restrictive. (LDC 905.2-C.1.b)
3. Sustainable Practices. Landscaping shall be installed so that landscaping materials meet the concept of right material/right place. Installed trees and plants shall be grouped into zones according to water, soil, climate, and light requirements. Plant groupings based on water requirements are drought tolerant, natural, and oasis. (LDC 905.2-C.1.c)
4. Diversity. A maximum of 50 percent of the plant materials used, other than trees, may be non-drought tolerant. A minimum of 30 percent of the plant materials, other than trees and turfgrass, used to fulfill the requirements of this subsection shall be native Floridian species, suitable for growth in the county. (LDC 905.2-C.1.d)
5. Diversity. No one plant species of shrubs or ground cover plants, excluding turfgrass, shall constitute more than 25 percent coverage of the overall landscape area. (LDC 905.2-C.1.d.5)
6. Quality. All plant materials shall be Florida No. 1 grade per "Grades and Standards for Nursery Plants," Florida Department of Agriculture and Consumer Services (FDACS), which is incorporated herein by reference. (LDC 905.2-C.2.a)
7. Avoid Easements. Trees shall not be planted within any easement so as to interfere with the use of that easement, nor under any present or planned overhead utility, nor in any rights-of-way without County approval through the associated review process. (LDC 905.2-C.3.c)
8. Mulch shall be used in conjunction with living plant materials so as to cover exposed soil. Mulch shall be installed to a minimum depth of three (3) inches. The mulch should not be placed directly against the plant stem or tree trunk. Mulch shall not be required for annual beds. Stone or gravel may be used to cover a maximum of 20 percent of the landscaped area, (LDC 905.2-C.3.d)
9. Quality Practices. All landscaping shall be installed in accordance with standards and practices of the Florida Nursery, Growers, and Landscape Association and the Florida Chapter of the International Society of Arboriculture. (LDC 905.2-C.3.e)
10. All portions of a lot upon which development has commenced, but not continued for a period of 30 days, shall be planted with a grass species or ground cover to prevent erosion and encourage soil stabilization. Adequate coverage, so as to suppress fugitive dust, shall be achieved within 45 days. (LDC 905.2-C.3.g)
11. All required landscaping shall be maintained in a healthy condition in perpetuity in accordance with this Code. (LDC 905.2-E.2)
12. Ongoing maintenance to prevent the establishment of prohibited exotic species is required. (LDC 905.2-E.4)

LANDSCAPE NOTES

1. ALL LANDSCAPE MATERIAL SHALL BE MAINTAINED BY THE PASCO COUNTY SHERIFF'S OFFICE.
2. ALL LANDSCAPE MATERIAL SHALL BE DROUGHT TOLERANT AND SHALL BE HAND WATERED UNTIL IT HAS BEEN ESTABLISHED.

KEY PLAN

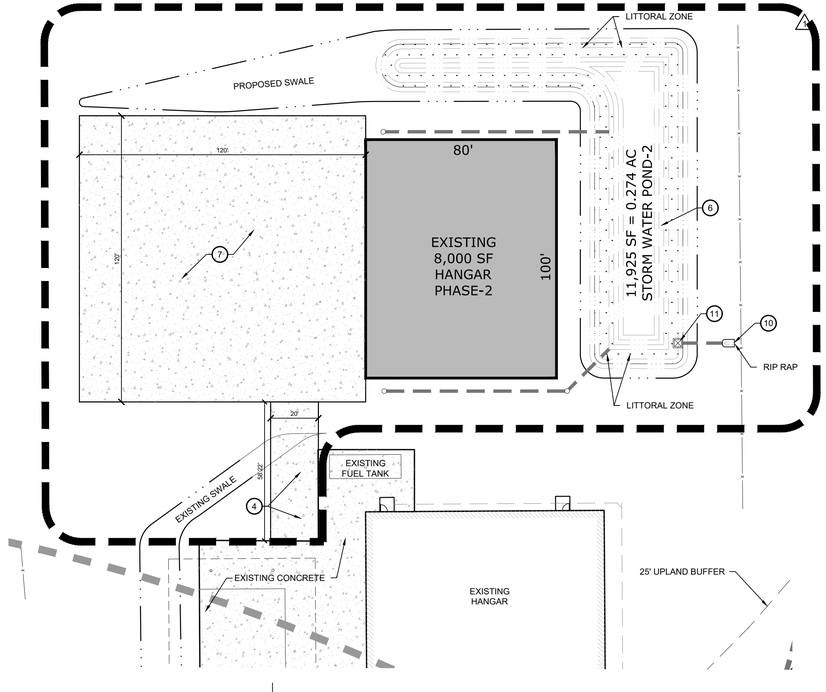


KEY NOTES

1. PROPOSED HANDICAP SPACE PER DETAIL ON SHEET C2.2.
2. PROPOSED HANDICAP RAMP PER DETAIL ON SHEET C2.2.
3. PROPOSED ASPHALT PAVEMENT PER DETAIL ON SHEET C3.0.
4. PROPOSED CONCRETE SIDEWALK PER DETAIL ON SHEET C2.2.
5. EXISTING 6' CHAIN LINK FENCE.
6. PROPOSED STORM WATER POND.
7. PROPOSED CONCRETE LANDING PAD PER DETAIL ON SHEET C3.0.
8. PROPOSED PUMP STATION PER DETAIL ON SHEET C4.0.
9. PROPOSED CATCH BASIN PER DETAIL ON SHEET C2.2.
10. PROPOSED MES PER DETAIL ON SHEET C2.2.
11. PROPOSED CONTROL STRUCTURE PER DTAIL ON SHEET C2.2.
12. PROPOSED STORM WATER MANHOLE PER DETAIL ON SHEET C2.2.
13. PROPOSED GRAVEL OR ASPHALT MILLING ROADWAY TO MATCH EXISTING GRADE.
14. PROPOSED FIRE HYDRANT, SEE UTILITY PLAN FOR DETAILS.
15. PROPOSED CONCRETE WHEEL STOPS PER DETAIL ON SHEET C2.2.
16. PROPOSED 12" YARD DRAINS, PER DETAIL ON SHEET C2.2.
17. PROPOSED TYPE 'D' CONCRETE CURB PER DETAIL ON THIS SHEET.

ENLARGED SITE PLAN-1

SCALE: 1"= 30'



ENLARGED SITE PLAN-2

SCALE: 1"= 30'

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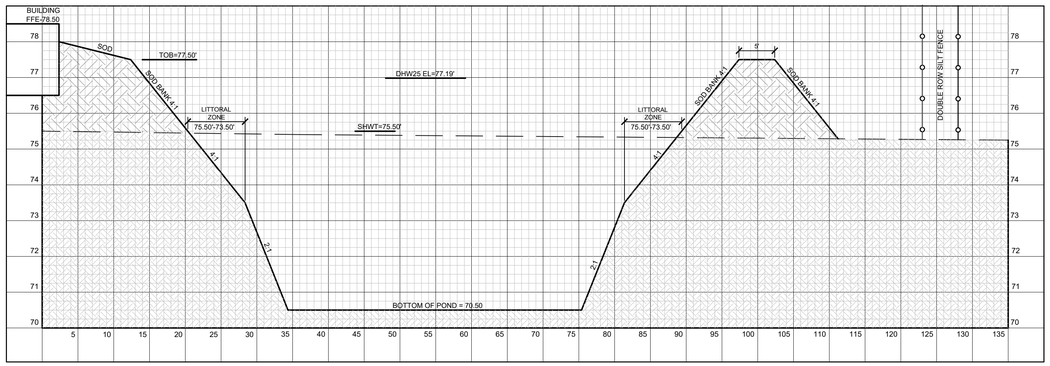
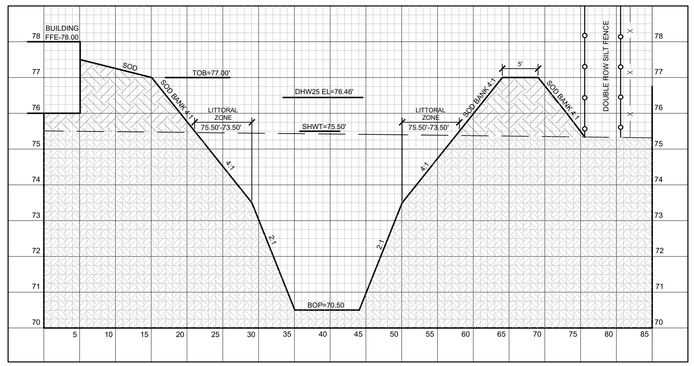
C2.1

ENLARGED SITE PLAN

POND-1 SECTION

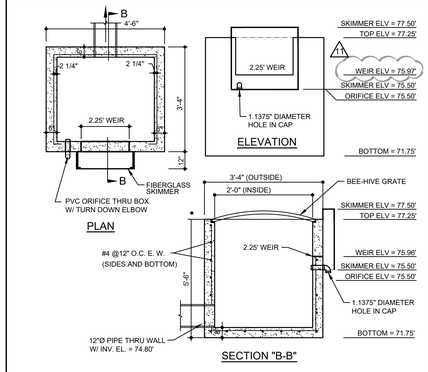


POND-2 SECTION

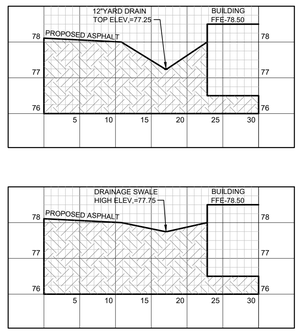


CONTROL STRUCTURE-1

MODIFIED FDOT TYPE 'C' INLET

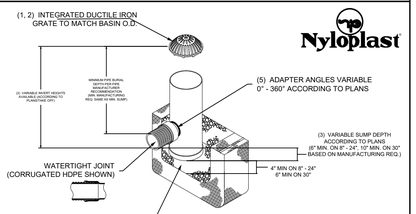


DRAINAGE SWALE SECTIONS



YARD DRAIN DETAIL

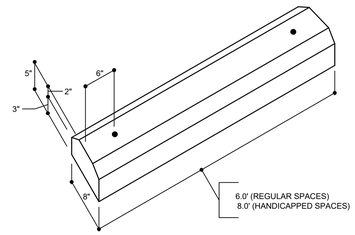
NYLOPLAST DRAIN BASIN WITH DOME GRATE



1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 4" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL). N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

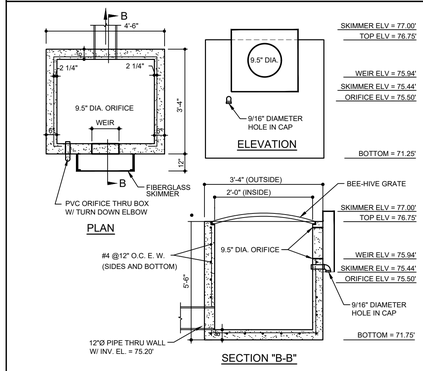
WHEEL STOP DETAIL

NOTE: 1. REQUIRES TWO 5/8" DIA. x 24" LONG STEEL BAR STAKES FOR EACH WHEELSTOP.
2. WHEELSTOP TO BE 3000 PSI CONCRETE AND REINFORCED WITH TWO #3 REBARS.
3. LOCATE WHEELSTOPS 30" FROM EDGE OF PAVEMENT.

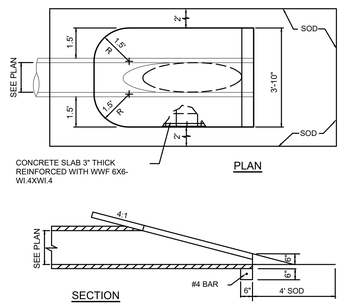


CONTROL STRUCTURE-2

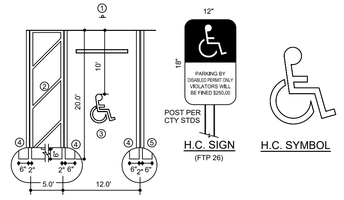
MODIFIED FDOT TYPE 'C' INLET



MITERED END SECTION F.D.O.T. INDEX No. 273

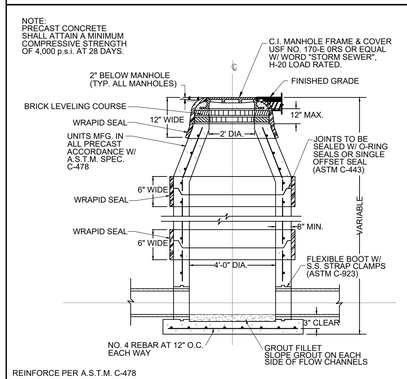


HC PARKING DETAIL



1. BOTTOM OF H.C. SIGN 84" ABOVE GRADE WITH A GALVANIZED METAL POST (ASTM A-499 GRADE 60, ASTM A-123 FINISH). ALL HARDWARE TO BE RUSTPROOF. INSTALL 1' DIA. X 2' DEEP, 3000 PSI CONCRETE FOOTING.
2. 6" WIDE PAINTED STRIPE (WHITE)
3. H.C. SYMBOL: 1 PER SPACE, PAINTED WHITE ON ASPHALT.
4. 6" WIDE PAINTED STRIPE (BLUE)
5. 6" WIDE PAINTED STRIPE (WHITE)
6. ALL BLUE TINTING TO MATCH FEDERAL STANDARD 595e, SHADE 15180.

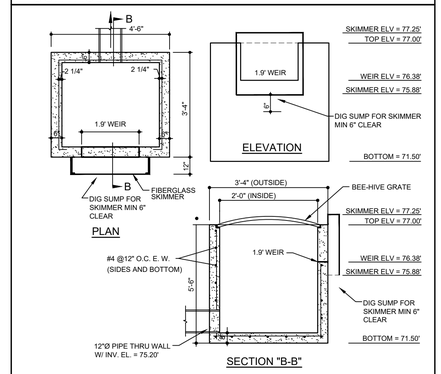
STORM WATER MANHOLE



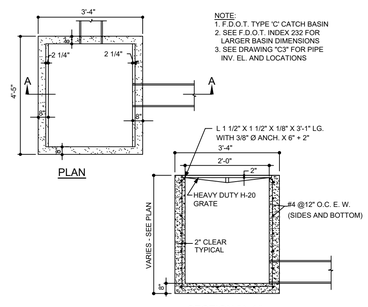
REINFORCE PER A.S.T.M. C-478

CONTROL STRUCTURE-3

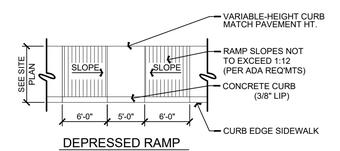
MODIFIED FDOT TYPE 'C' INLET



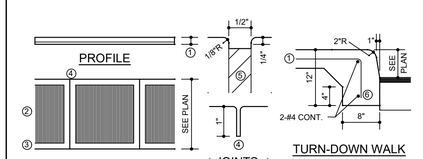
CATCH BASIN DETAIL



CONCRETE RAMP DETAIL



SIDEWALK DETAIL



1. CONCRETE SIDEWALK: 4" THICK SLAB ON-SITE AND 6" THICK SLAB OFF-SITE WITH 6x6 #10/10 W.W.M. PLACED 2" ABOVE THE BOTTOM OF THE SLAB.
2. ROUGH BROOM FINISH.
3. 5" WIDE SMOOTH TROWEL FINISH ALONG SIDEWALK EDGE AND JOINTS.
4. CONTRACTION JOINT: 1/8" WIDE x 1" DEEP, SPACED 5' O.C.
5. CONSTRUCTION JOINT: USE PRE-MOLDED FILLER AT BUILDING AND UTILITIES.
6. TURN-DOWN WALK: TERMINATE SIDEWALK ALONG ASPHALT PAVING WITH A THICKENED FOOTING AS SHOWN.

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11104 NORTH 61ST STREET
TEMPLE TERRACE, FLORIDA 33617
PHONE: (813) 988-0727

J.S.NAGAMIA, P.E.
FL. LIC. #19241

DATE

NO.	DATE	REVISION
1	01.14.18	COUNTY AND SWFWMD REVIEW
7	05.28.19	OWNER MODIFICATION
9	11.14.19	SWFWMD REVIEW
10	12.19.19	COUNTY REVIEW
11	09.10.20	SWFWMD REVIEW

Pasco County Sheriff's Office
Forensic-Training-Shoot House-Hangar
Lucy Dobies Court - Land O' Lakes, Florida 34637

C2.2

ENLARGED SITE PLAN

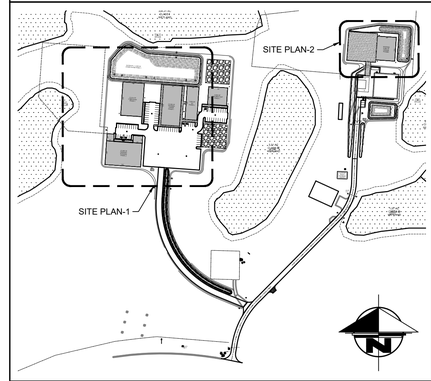
LEGEND

- DIRECTION OF FLOW
- PROPOSED ELEVATION @ PAVEMENT — x 55.00
- EXISTING ELEVATION — + 104.63
- CATCH BASIN (SEE DETAIL ON SHEET C2.2)
- CONTROL STRUCTURE (SEE DETAIL ON SHEET C2.2)
- MITERED END SECTION (SEE DETAIL ON SHEET C2.2)
- ADS N-12 STORM WATER PIPE
- PVC RAIN LEADERS

GRADING NOTES

1. CONTRACTOR SHALL INSURE THAT THE CONSTRUCTION OF ALL HANDICAPPED PARKING SPACES, ACCESS AISLES, LOADING ZONES AND RAMPS COMPLY WITH THE ADA AND CABO/ANSI STANDARDS. SLOPES OF HANDICAPPED PARKING AND LOADING AREAS SHALL NOT EXCEED 2%. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER (IN WRITING) OF ANY PROBLEM AREAS PRIOR TO CONSTRUCTION OR ASSUME RESPONSIBILITY FOR ALL NECESSARY RELATED CORRECTIONS.
2. ALL ORGANIC MATERIAL SHALL BE REMOVED FROM BENEATH THE FOOTINGS, SLABS AND PAVEMENT AND REPLACED WITH COMPACTED INORGANIC GRANULAR BACKFILL. EXCAVATION OF UNSUITABLE MATERIALS SHOULD EXTEND A MINIMUM DISTANCE OF 5' BEYOND THE FOOTPRINT OF THE BUILDING OR EDGE OF PAVEMENT.
3. FOR ADDITIONAL INFORMATION ON THE REQUIRED SITE PREPARATION REFER TO THE REPORT OF GEOTECHNICAL SUBSURFACE EXPLORATION.
4. REMOVAL OF ALL CONSTRUCTION DEBRIS, LIMEROCK, EXCESS OF BUILDERS SAND, CONCRETE AND MORTAR DEBRIS, EXISTING WEEDS AND GRASSES, AND ALL FOREIGN MATERIALS IN THE PLANTING BED AND SOD AREAS SHALL BE REMOVED AND CLEAN FLORIDA FILL OF PH 5.5-6.6 SHALL BE INSTALLED PRIOR TO ANY INSTALLATION OF PLANTS OR TREES.
5. PRIOR TO THE START OF CLEARING AND GRUBBING OR ANY SOIL DISTURBANCE, CONTACT PC STORMWATER MANAGEMENT AT (727) 834-3611 FOR A SOIL EROSION AND SEDIMENT CONTROL, PRE-INSPECTION MEETING.
6. THE CONTRACTOR MUST PROVIDE A DEWATERING PLAN, IF APPLICABLE, TO PASCO COUNTY ENGINEERING INSPECTIONS DEPARTMENT AT (727) 834-3670 FOR REVIEW PRIOR TO THE EROSION CONTROL MEASURES PRE-INSPECTION MEETING.

KEY PLAN



PAVEMENT DETAIL

2" HOT MIX SURFACE COURSE (ASPHALT MIX TYPE "S-1") COMPACTED TO MIN. 98% OF MARSHALL MAX. LAB. UNIT WT.
8" CRUSHED CONCRETE BASE COURSE - MIN. 98% MOD. PROCTOR MAX.DRY DENSITY AND MIN. LBR OF 100
12" STABILIZED SUBBASE - W/ MIN LBR OF 40 AND COMPACTED TO MIN. 98% MOD. PROCTOR MAX. DRY DENSITY.

ASPHALT PAVEMENT

7" PORTLAND CEMENT CONCRETE (4,000 PSI @ 28 DAYS PER ASTM C-39) REINFORCED WITH FIBERMESH
12" COMPACTED SUBBASE - COMPACTED TO MIN. 98% AASHTO-T99 (ASTM D-698); K=100 PSI/IN; LBR=3.7

CONCRETE PAVEMENT

4" ASPHALT MILLINGS COMPACTED TO MIN. 98%
12" COMPACTED SUBBASE - COMPACTED TO MIN. 98% AASHTO-T99 (ASTM D-698); K=100 PSI/IN; LBR=3.7

ASPHALT MILLING PAVEMENT

CALCULATIONS FOR STORM SEWER DESIGN

InletID	Grnd/Rim Elev Up	InvertUp	HGLUp	ToLine	InvertDn	HGLDn	Drain Area	Runoff Coeff	IncrCxA	Tota IC x A	Tc	iSyst	Total Runoff	LineSize	Capac. Full	Line Slope	Line Length	VelAve
	(ft)	(ft)	(ft)		(ft)	(ft)	(ac)	(C)			(min)	(in/hr)	(cfs)	(in)	(cfs)	(ft/ft)	(ft)	(ft/s)
CB-01	77.00	73.67	75.04	CB-02	73.44	75.01	0.485	0.95	0.461	0.461	15	4.24	0.62	18	2.09	0.002	115	1.56
CB-02	77.00	73.44	74.88	CB-03	72.95	74.66	0.451	0.95	0.428	0.889	17.2	3.96	1.36	18	2.9	0.004	114	2.86
CB-03	77.14	72.95	74.66	MH-04	72.83	74.64	0.162	0.95	0.154	1.043	18	3.86	1.66	24	3.9	0.002	66	3.1
MH-04	78.25	72.83	74.59	YD-05	72.77	74.59	0.252	0.95	0.239	1.282	19.4	3.72	2.02	24	3.89	0.002	30	3.33
YD-05	77.50	72.77	74.55	MES-06	72.50	74.50	0.000	0.95	0.000	1.282	15	4.24	1.48	24	3.16	0.002	135	3.62
CB-20	77.20	73.11	74.42	MH-21	72.83	74.14	0.175	0.95	0.166	0.166	15	4.24	1.24	12	2.04	0.003	67	2.41
CB-21	77.20	72.83	74.25	MES-22	72.50	74.39	0.308	0.95	0.293	0.459	17.2	3.64	3.44	18	5.02	0.0022	152	2.84

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FL. LIC. #19241
DATE

NO.	DATE	REVISION
1	01.14.18	COUNTY AND SWFWMD REVIEW
2	05.16.18	OWNER MODIFICATION
3	06.25.18	COUNTY REVIEW
4	01.14.19	OWNER MODIFICATION
5	05.28.19	OWNER MODIFICATION
6	06.26.19	OWNER MODIFICATION
7	07.23.19	OWNER MODIFICATION
8	07.23.19	COUNTY REVIEW
9	09.10.20	SWFWMD REVIEW
10	12.29.19	COUNTY REVIEW
11	09.10.20	SWFWMD REVIEW
12	10.06.20	OWNER MODIFICATION

Pasco County Sheriff's Office

Forensic-Training-Shoot House-Hangar

Lucy Dobies Court - Land O' Lakes, Florida 34637

INVESTIGATE BEFORE YOU EXCAVATE
"CALL SUNSHINE STATE ONE"
1-800-432-4770
FL STATUTE 553.851 (1970) REQUIRES MIN. OF 2 DAYS AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE

SECTIONS 15, TOWNSHIP 25 SOUTH, RANGE 18 EAST
PASCO COUNTY, FLORIDA

PAVING, GRADING AND DRAINAGE PLAN-1
SCALE: 1"= 30'

PAVING, GRADING AND DRAINAGE PLAN-2
SCALE: 1"= 30'

C3.0
PAVING, GRADING AND DRAINAGE PLAN

SECTIONS 15, TOWNSHIP 25 SOUTH, RANGE 18 EAST
PASCO COUNTY, FLORIDA

STORM WATER POLLUTION PREVENTION PLAN

SCALE: 1"= 70'

INVESTIGATE BEFORE YOU EXCAVATE
"CALL SUNSHINE STATE ONE"
1-800-432-4770
Dial 1 then 811
FL STATUTE 553.851 (1979) REQUIRES MIN. OF 2 DAYS AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE.

EROSION CONTROL NOTES

ALL EROSION CONTROL MEASURES (SILT BARRIERS) MUST BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND REMAIN IN PLACE THROUGHOUT CONSTRUCTION. ENCROACHMENT OR FAILURE TO MAINTAINTHESE BARRICADES COULD RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION. SILTATION BARRIERS SHALL BE MAINTAINED AND REPAIRED AT THE END OF EACH WORKING DAY. HAY BALES SHALL BE INSTALLED ONCE PERIMETER GRADING IS COMPLETED. STORMWATER FACILITIES SHALL HAVE HAY BALES PLACED AROUND THEIR ENTRANCES TO PREVENT SEDIMENT FROM BEING TRANSPORTED INTO THE STORMWATER SYSTEM. HAY BALES SHALL BE PLACED ALONG THE PERIMETER OF ALL DOWNSTREAM BOUNDARIES TO PROVIDE FILTRATION OF RUNOFF DURING CONSTRUCTION. THE HAY BALES SHALL REMAIN IN PLACE UNTIL THE ENGINEER HAS APPROVED THE VEGETATIVE COVER ALONG EMBANKMENTS PROVIDING RUNOFF TO THE PERIMETER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN SOIL EROSION CONTROL DEVICES. IF AT ANY TIME DRAINAGE STRUCTURES OR EROSION CONTROL DEVICES BECOME DAMAGED OR INOPERABLE, IT IS THE CONTRACTORS RESPONSIBILITY TO REPAIR THEM. THE CONTRACTOR IS EXPECTED, AT THE END OF EACH DAY, TO HAVE THE SITE GRADED IN SUCH A WAY THAT ADJACENT PROPERTIES ARE NOT ADVERSELY IMPACTED BY EROSION OR SEDIMENT LEAVING THE SITE. CLEARED AREAS SHALL BE STABILIZED EARLY IN THE CONSTRUCTION PROCESS AND IF NATURAL PRECIPITATION DOES NOT PROVIDE PERIODIC WETTING OF THE SITE, THEN THE CONTRACTOR SHALL PROVIDE A METHOD OF SPRAYING THE SITE TO PREVENT WIND EROSION.

CSWMP SIGNATURES

OWNER: PASCO COUNTY SHERIFF'S OFFICE
8700 CITIZEN DRIVE
NEW PORT RICHEY, FLORIDA 34654
PHONE: (727) 844-7763

_____
OWNERS SIGNATURE

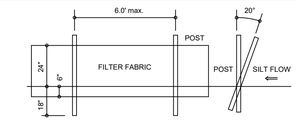
ENGINEER: J.S. NAGAMIA, P.E.
11104 NORTH 61st STEET
TEMPLE TERRACE, FLORIDA 33617
PHONE: (813) 988-0727

_____
J.S. NAGAMIA, P.E.
PROJECT ENGINEER #19241

LEGAL DESCRIPTION

THE NORTH 1010 FT OF SOUTH 2260 FT OF EAST 3030 FT & THE SOUTH 1250 FT OF SECTION 15 LYING EAST OF US HWY 41 BEING MEASURED AT RIGHT ANGLES TO THE SOUTH & EAST BOUNDARY OF SECTION 15 EXC COM AT MOST WLY CORNER OF SOUTH 1250 FT OF SECTION LYING EAST OF US HWY 41 FOR POB TH ELY 460 FT ALONG NORTH LINE OF SOUTH 1250 FT FOR PT A TH RETURN TO POB TH SELY ALONG R/W US HWY 41 275 FT TH NELY 350 FT MOL TO PT A SUBJECT TO PERPETUAL WELLSITE EASEMENT PER OR 4997 PG 1487 & SUBJECT TO PERPETUAL WELLSITE EASEMENT PER OR 4997 PG 1498 LESS THAT POR KNOWN AS CONNERTON COMMERCE PARK PCL 4B PER OR 7598 PG 1526 OR 1716 PG 467

SILT FENCE DETAIL



1. FILTER FABRIC TO CONFORM WITH F.D.O.T. SPECIFICATIONS (SEC. 985)
2. POSTS TO BE 2"x4" WOOD POST OR 1.3 LB/FT STEEL POST.
3. POST POSITION TO BE CANTED (20°) OR VERTICAL (90°).
4. DO NOT DEPLOY IN A MANNER THAT SILT FENCE WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATER COURSES.

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DATE

NO.	DATE	REVISION

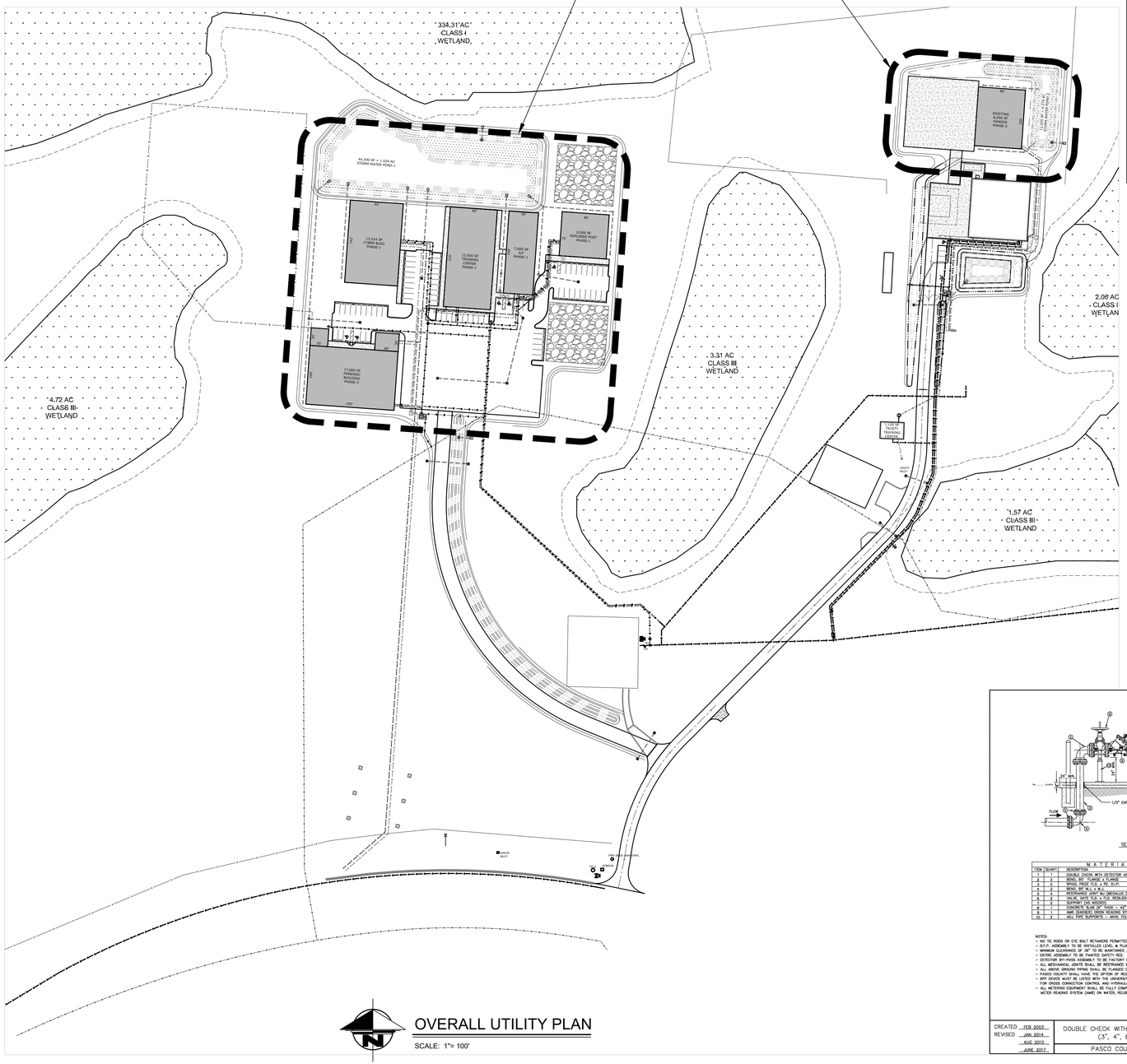
Pasco County Sheriff's Office

Forensic-Training-Shoot House-Hangar
Lucy Dobies Court - Land O' Lakes, Florida 34637

C3.1
STORM WATER POLLUTION PREVENTION PLAN

SECTIONS 15, TOWNSHIP 25 SOUTH, RANGE 18 EAST
PASCO COUNTY, FLORIDA

SEE ENLARGED UTILITY PLAN ON SHEET C4.1



OVERALL UTILITY PLAN
SCALE: 1"= 100'

UTILITY CONTACTS

POTABLE WATER: IRRIGATION: SEWER:	PASCO COUNTY UTILITIES 7530 LITTLE ROAD NEW PORT RICHEY, FL 34654 (727) 847-8145
ELECTRICAL:	WITHLACOOCHEE RIVER ELECTRIC P.O. BOX 278 DADE CITY, FL 33526 (352) 536-4000 EXT. 3138
TELEPHONE:	VERIZON 610 ZACK ST 9th FLOOR TAMPA, FL 33602 (800) 483-5000 Ext. 25652

FIXTURE COUNTS

FIXTURE	FIXTURE VALUE	No. OF FIXTURES	No. OF FIXTURES
LAVATORY ½" CONNECTION	4	12	48
SHOWER HEAD	4	2	8
KITCHEN SINK ½" CONNECTION	3	2	6
WASH SINK	4	1	4
WATER CLOSET - FLUSH VALVE	10	12	120
URINAL - FLUSH VALVE	10	2	20
HOSE CONNECTION ¾"	10	3	30
SERVICE SINK ½" CONNECTION	3	1	3

COMBINED FIXTURE VALUE TOTAL	239
MINIMUM METER SIZE - 66 GPM = 1 ½" METER / 2" METER EXISTING	
FIRE HYDRANT W/ MIN. 1500 GPM	

UTILITY NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED TESTING.

2. CONTRACTOR SHALL COORDINATE WITH COUNTY PRIOR TO SUBMITTING BID.

3. CONTRACTOR IS TO FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND CONTACT THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.

4. ALL DISTURBED RIGHT-OF-WAY SHALL BE SODDED. CONTRACTOR TO NOTIFY PUBLIC WORKS 24 HOURS PRIOR TO BEGINNING ANY WORK IN THE COUNTY RIGHT-OF-WAY AND PRIOR TO PLACEMENT OF CONCRETE, ASPHALT OR SOD FOR GRADE VERIFICATIONS.

5. ANY TRENCHES THAT PASS WITHIN 20' OF THE TRUNK OF AN EXISTING TREE MUST BE HAND DUG AND ANY ROOTS OVER 1" IN DIAMETER MUST BE TRENCHED UNDER TO ALLOW THE ROOT TO REMAIN IN TACK.

6. ALL FIRE HYDRANTS MUST BE FLOW TESTED AND COLOR CODED BASED ON FLOW RESULTS.

7. ALL UTILITY MATERIAL AND WORKMANSHIP MUST COMPLY WITH STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER, WASTEWATER AND RECLAIMED WATER FACILITIES SPECS. JUNE 1995 EDITION.

8. CONNECTIONS INTO EXISTING COUNTY-OWNED SYSTEM SHALL BE VIA WET TAP. WET TAPS SHALL BE PERFORMED BY PASCO COUNTY UTILITIES SERVICES BRANCH AT THE DEVELOPER'S EXPENSE. EXCAVATION, BACK FILL, AND SURFACE RESTORATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. MATERIAL FOR WET TAPS LARGER THAN TWO INCHES SHALL BE PROVIDED AND INSTALLED BY THE PROJECT CONTRACTOR.

9. THE PASCO COUNTY UTILITIES SERVICES BRANCH SHALL NOT OWN OR MAINTAIN WATER AND SEWER LINES OR FACILITIES ON-SITE.

10. ALL PROJECTS MUST COMPLY WITH PASCO COUNTY FIRE HYDRANT ORDINANCE No. 46-51.

11. FIRE HYDRANTS SHALL BE INSTALLED AND IN SERVICE PRIOR TO THE ACCUMULATION OF COMBUSTIBLES.

12. PER THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA-1, 16.4.3.1.3: WHERE UNDERGROUND WATER MAINS AN HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO CONSTRUCTION WORK.

13. PER NFPA-1, 18.3.4.1: CLEARANCES OF 7 ½ FEET IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT WITH A 4 FOOT CLEARANCE TO THE REAR MUST BE MAINTAINED AT ALL TIMES.

14. GATED ENTRIES REQUIRE A SIREN OPERATING SYSTEM OR A 3M OPTICOM SYSTEM FOR EMERGENCY ACCESS.

15. FIRE PROTECTION SHALL MEET THE REQUIREMENTS OF THE PASCO COUNTY CODE OF ORDINANCES, CHAPTER 46, FIRE PREVENTION AND PROTECTION, AND PLANS SHALL COMPLY WITH REFERENCED REQUIREMENTS.

16. THE SUBJECT PROPERTY IS LOCATED WITHIN THE 5 YEAR AND 10 YEAR WELLHEAD PROTECTION AREA AND SHALL COMPLY WITH GROUNDWATER PROTECTION ORDINANCE No. 02-27.

17. IN CONSIDERATION OF PASCO COUNTY'S AGREEMENT TO PROVIDE POTABLE WATER AND/OR RECLAIMED WATER TO THE SUBJECT PROPERTY, DEVELOPER/OWNER, AND ITS SUCCESSORS AND ASSIGNS, AGREE TO THE FOLLOWING:
(A) IN THE EVENT OF PRODUCTION FAILURE OR SHORTFALL BY TAMPA BAY WATER, AS SET FORTH IN SECTION 3.19 OF THE INTERLOCAL AGREEMENT CREATED BY TAMPA BAY WATER, DEVELOPER/OWNER SHALL TRANSFER TO PASCO COUNTY ANY AND ALL WATER USE PERMITS OR WATER USE RIGHTS THE DEVELOPER/OWNER MAY HAVE TO USE OR CONSUME SURFACE OR GROUND WATER WITHIN PASCO COUNTY.

(B) PRIOR TO DEVELOPER/OWNER SELLING WATER OR WATER USE PERMITS OR WATER USE RIGHTS, DEVELOPER/OWNER SHALL NOTIFY PASCO COUNTY, AND PASCO COUNTY SHALL HAVE A RIGHT OF FIRST REFUSAL TO PURCHASE SUCH WATER OR WATER USE PERMITS OR WATER USE RIGHTS.

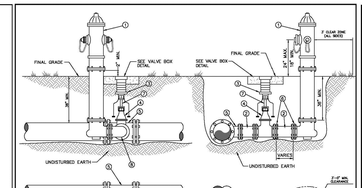
SECTION

MATERIALS

ITEM	QUANT.	DESCRIPTION
1	1	DOUBLE CHECK WITH DETECTOR ASSEMBLY
2	2	SPOOL, 90° FLANGE x FLANGE
3	2	SPOOL PIECE O.S. x PE. D.I.P.
4	2	SPOOL, 90° M.J. x M.J.
5	4	RESTRAINED JOINT M.J. (MEGALUG OR EQUAL)
6	4	M.J. GATE VALVE W/ FULLY RESILIENT WEDGE O.S. & Y.
7	2	SURFACE BOX ASSEMBLY
8	1	CONCRETE SLAB (3" THICK - 42" WIDE MIN.)
9	1	AMR (BADGER) DRIVE READING SYSTEM
10	2	ADJ. PIPE SUPPORTS - ANVIL FIG. 265 W/ 637 STANCHION & BASE PLATE

NOTES:
- NO TE RODS OR EYE BOLT RETAINERS PERMITTED ABOVE GROUND.
- B.F.P. ASSEMBLY TO BE INSTALLED LEVEL & PLUMB.
- MINIMUM CLEARANCE OF 36" TO BE MAINTAINED AROUND ENTIRE DEVICE FOR TESTING
- B.F.P. ASSEMBLY TO BE INSTALLED ABOVE GRADE.
- DETECTOR BY-PASS ASSEMBLY TO BE FACTORY INSTALLED AND CERTIFIED
- ALL MECHANICAL JOINTS SHALL BE RESTRAINED WITH MEGALUGS OR APPROVED EQUAL
- ALL ABOVE GROUND PIPING SHALL BE FLANGED DUCTILE IRON PIPE CEMENT LINED (NO GALVANIZED OR PVC)
- PASCO COUNTY SHALL HAVE THE OPTION OF REQUIRING THE ENTIRE ASSEMBLY TO BE ENCLOSED IN 6' CHAIN LINK FENCE.
- ALL BACKFLOW PREVENTERS SHALL BE APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.
- ALL METERING EQUIPMENT SHALL BE FULLY COMPATIBLE WITH PCU CURRENTLY EXISTING AUTOMATIC METER READING SYSTEM (AMR) ON WATER, RECLAIM AND SEWER METERS, AS APPLICABLE

CREATED FEB 2003 REVISED JAN 2014 AUG 2015 JUNE 2017	DOUBLE CHECK WITH DETECTOR ASSEMBLY (3", 4", 6", 8", 12")	PROVIDED FOR INFORMATIONAL PURPOSES ONLY NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL W7



MATERIALS

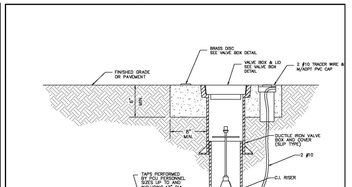
ITEM	QUANT.	DESCRIPTION
1	1	FIRE HYDRANT (5 1/4" VALVE MIN.), PAINTED YELLOW
3	*	6" DIA. PVC, 4'-C, 235-150 MAX SF LENGTH VALVE MUST BE RESTRAINED TO "TEE" (ANCHOR COUPLING OR ANCHOR TEE)
4	1	VALVE BOX, SLIP TYPE
5	1	6" GATE VALVE W.J. RESILIENT WEDGE, M.A.J.
6	1	ANCHOR TEE, M.J.
7	*	6" RESTRAINED JOINT M.J. (MEGALUG OR EQUAL)
8	*	VALVE EXTENSION ROD, AS NECESSARY (5' MAX. BELOW GRADE)
9	*	6" 90° BEND, O.L. RESTRAINED

NOTES:
1. MINIMUM CLEARANCE OF 18" FROM C/L OF STEAMER NOZZLE TO FINAL GRADE, TO BE ADJUSTED BY CONTRACTOR.
2. ADD REFLECTIVE PAVEMENT MARKER (WPM, BLUE/BLUE) IN CENTER OF LANE ADJACENT TO FIRE HYDRANT ASSEMBLY.
3. A 3'-0" CLEAR ZONE SURROUNDING THE HYDRANT SHALL BE FREE OF ANY TREES, SHRUBS, AND DRIVEWAYS.
4. HYDRANT FLOW TESTS SHALL BE DONE AS FOLLOWS:
   - BELOW 500 GPM - RED
   - 500-1,000 GPM - ORANGE
   - 1,000-1,500 GPM - GREEN
   - ABOVE 1,500 GPM - BLUE

SLIM CORP. F-842 W.o. HYDRANT TEE

** F-842 W.o. HYDRANT TEE MAY BE SUBSTITUTED FOR THE ANCHOR TEE

CREATED FEB 2003 REVISED SEPT. 2014 AUG 2015 JUNE 2017	FIRE HYDRANT CONFIGURATION	PROVIDED FOR INFORMATIONAL PURPOSES ONLY NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL W1.3



ELEVATION

NOTES:
- SADDLE TO BE INSTALLED 3'-0" MIN. FROM ANY BELL OR FITTING.
- TAPPING SLEEVE, (CONTRACTOR-FURNISHED PIPING AND FITTINGS AS SPECIFIED BY COUNTY/ENGINEER.
- VALVE EXTENSION ROD SHALL BE UTILIZED, AS NECESSARY, SO THAT VALVE OPERATING NUT IS A MAXIMUM OF 3' BELOW GRADE.
- AFTER SETTING OF SLEEVE, CONTRACTOR TO NOTIFY PCU MAINTENANCE DEPT. FOR WET TAP.
- PRESSURE TEST 150 PSI FOR A MIN. OF 1/2 HOUR AFTER INSTALLATION
- BACK FILL PER REQUIREMENTS OF DETAIL G-3

W, RW, FM

CREATED FEB 2003 REVISED JAN 2014 JUNE 2015 JUNE 2017	TAPPING VALVE AND SLEEVE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL G6

J. S. NAGAMIA, P.E.
11104 NORTH 61ST STREET
TEMPLE TERRACE, FLORIDA 33617
PHONE: (813) 988-0727

J.S.NAGAMIA, P.E.
FL. LIC. #19241

DATE

NO.	DATE	REVISION
5	01.14.19	OWNER MODIFICATION

Pasco County Sheriff's Office
Forensic-Training-Shoot House-Hangar
Lucy Dobies Court - Land O' Lakes, Florida 34637

C4.0

OVERALL UTILITY PLAN

SECTIONS 15, TOWNSHIP 25 SOUTH, RANGE 18 EAST
PASCO COUNTY, FLORIDA

44,590 SF = 1.024 AC
STORM WATER POND-1

92'
142'
13,514 SF
CYBER BLDG
PHASE-1
FFE=78.50'

80'
170'
13,600 SF
TRAINING
CENTER
PHASE-1
FFE=78.50'

50'
140'
7,000 SF
ILP
PHASE-1
FFE=78.50'

80'
75'
6,000 SF
EXPLORER POST
PHASE-1
FFE=78.50'

30'
30'
40'
30'
100'
17,660 SF
FORENSIC
BUILDING
PHASE-3
FFE=78.50'
150'

INV.=73.63'
±55 LF
INV.=73.08'
±230 LF
±118 LF
INV.=77.45'
±150 LF
±89 LF
12" STORM
INV.=73.75
6" SANITARY
INV.=76.54
INV.=76.40'
INV.=76.00'
±67 LF
±61 LF
±98 LF
24" STORM
INV.=72.93
6" SANITARY
INV.=75.70
±25 LF
INV.=72.50'
±50 LF
±30 LF
INV.=72.20'
INV.=73.22'
±102 LF
±275 LF
RIM ELEV=77.73'
W ELEV=71.70'
N ELEV=71.70'
S ELEV=71.60'
±155 LF
±736 LF
±905 LF
INV.=71.45'
±48 LF
RIM ELEV=78.50'
N ELEV=70.90'
±153 LF
±104 LF
±55 LF
EXISTING 6" FORCE MAIN
EXISTING 6" WATER MAIN
C/S
PIPE
PIPE
METER TO BE REPLACED
TO MEET CURRENT
COUNTY SPEC'S

6" PVC WATER MAIN
6" DOUBLE DETECTOR
CHECK VALVE ASSEMBLY
NEW 6" GATE VALVE
6" WATER MAIN
6"x6" WET TAP
6" EXISTING

ENLARGED UTILITY PLAN-1
SCALE: 1"= 30'

EXISTING
8,000 SF
HANGAR
PHASE-2
80'
100'

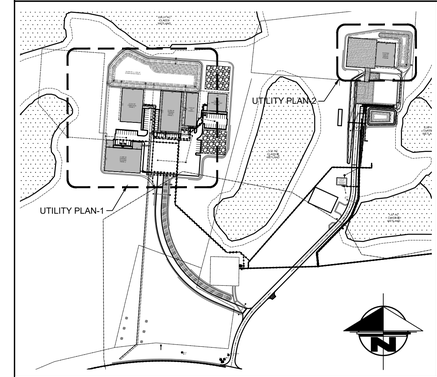
11,925 SF = 0.274 AC
STORM WATER POND-2

ENLARGED UTILITY PLAN-2
SCALE: 1"= 30'

KEY NOTES

1. CONTRACTOR TO INSTALL SANITARY CLEANOUT, SEE DETAIL ON SHEET C4.0.
2. CONTRACTOR TO INSTALL NEW 6" PVC SANITARY SEWER LINE W/ MIN. SLOPE OF 1%, SEE PLAN FOR LENGTH AND INVERT ELEVATIONS.
3. CONTRACTOR TO INSTALL NEW SANITARY SEWER MANHOLE PER DETAIL ON SHEET C4.0.
4. CONTRACTOR TO INSTALL NEW 8" PVC SANITARY SEWER LINE W/ MIN. SLOPE OF 0.45%, SEE PLAN FOR LENGTH AND INVERT ELEVATIONS.
5. CONTRACTOR TO INSTALL NEW PUMP STATION PER DETAIL ON SHEET C4.2.
6. CONTRACTOR TO INSTALL NEW 2" FORCE MAIN AND WET TAP EXISTING 6" FORCE MAIN PER DETAIL ON SHEET C4.0.
7. CONTRACTOR TO COORDINATE W/ WATER COMPANY AND WET TAP EXISTING 6" WATER MAIN PER DETAIL ON SHEET C4.0 AND RUN NEW 6" WATER MAIN.
8. CONTRACTOR TO INSTALL NEW FIRE HYDRANT PER DETAIL ON SHEET C4.0.
9. CONTRACTOR TO INSTALL NEW 2" PVC WATER LINE FROM NEW 6" WATER MAIN TO PROPOSED BUILDING.
10. CONTRACTOR TO INSTALL 1" WATER LINE WITH GATE VALVE TO PROPOSED PUMP STATION.
11. CONTRACTOR TO COORDINATE WITH POWER COMPANY AND INSTALL NEW UNDERGROUND ELECTRICAL SERVICE.
12. CONTRACTOR TO COORDINATE WITH PHONE COMPANY AND INSTALL NEW ELECTRICAL CONDUIT FOR PHONE LINE FROM EXISTING PHONE BOX TO NEW BUILDING.

KEY PLAN



CONTRACTOR'S RESPONSIBILITIES

2" ONLY - THIS EXCAVATED TRENCH MUST BE DRY OR THE TRENCH WILL REQUIRE ROCK AND A PUMP TO BE IN PLACE. THE MINIMUM DISTANCE FROM THE FACE OF THE VALVE TO THE WALL OF THE TRENCH IS TO BE SIX FEET. THE COUNTY WILL PROVIDE THE TAPPING SADDLE, CORPORTATION STOP, STAINLESS STEEL NIPPLE, AND IRON BODY VALVE.

3" AND LARGER - THE CONTRACTOR WILL SUPPLY A TAPPING SADDLE BEING EPOXY COATED, A TAPPING VALVE WITH MECHANICAL JOINT AND THE EQUIPMENT TO PROVIDE, AND CONDUCT A PRESSURE TEST. COUNTY PERSONNEL WILL WITNESS THE PRESSURE TEST WHICH MUST BE AT 150 PSI FOR DURATION OF THIRTY MUNUTES.

THE CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION BEFORE ANY COUNTY PERSONNEL WILL ENTER AN EXCAVATION AREA. IF THE TRENCH IS FOUR FEET IN DEPTH OR DEEPER, IT WILL REQUIRE A TRENCH BOX OR SLOPING, AND A LADDER ACCORDING TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.

THE TAPPING VALVE WILL REQUIRE A BLOCKING DEVICE MADE OF SUITABLE MATERIAL OR DEVICE. THEIS BLOCKING DEVICE OR MATERIAL WILL BE PLACED UNDER THE VALVE AND REMAIN IN PLACE UNTIL THE TAP MACHINE IS REMOVED AND THE TAP IS COMPLETED.

NOTE: IF THE CONTRACTOR HAS NOT FULFILLED HIS RESPONSIBILITES, AS STATED ABOVE, PRIOR TO THE ARRIVAL OF PASCO COUNTY UTILITIES OPERATIONS AND MAINTENANCE TAPPING CREW, THERE WILL BE AN ADDITIONAL CHARGE OF $96.00.

IF YOU HAVE ANY QUESTIONS REGARDING THIS INFORMATION, CONTACT NELSON D. HOLT, MAINTENANCE SUPERVISOR, UTILITIES SERVICES BRANCH, AT (813) 235-6189, OR E-MAIL NHOLT@PASCOCOUNTYFL.NET.

J. S. NAGAMIA, P.E.
11104 NORTH 61ST STREET
TEMPLE TERRACE, FLORIDA 33617
PHONE: (813) 988-0727

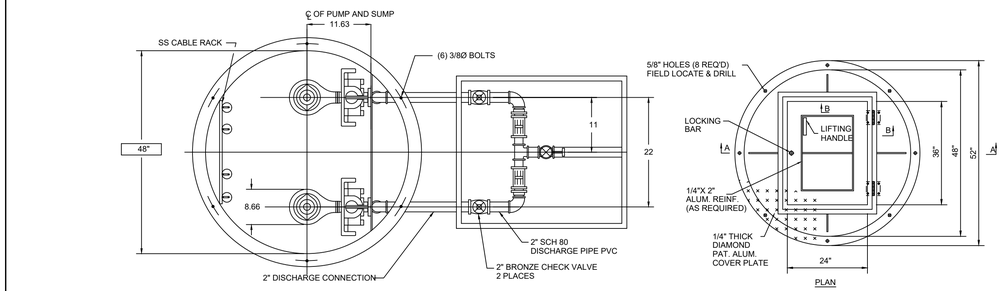
J.S.NAGAMIA, P.E.
FL. LIC. #19241
DATE

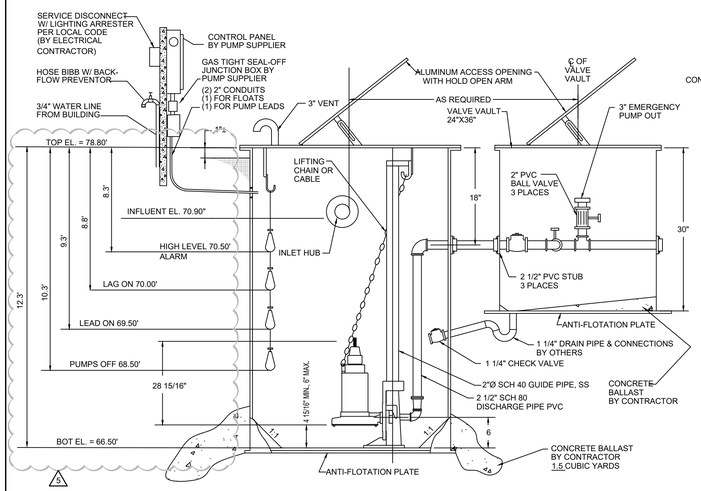
NO.	DATE	REVISION
1	01.14.18	COUNTY AND SWFWMD REVIEW
4	10.29.18	PASCO COUNTY UTILITY REVIEW
5	01.14.19	OWNER MODIFICATION
6	03.28.19	OWNER MODIFICATION
7	05.28.19	OWNER MODIFICATION
8	07.23.19	OWNER MODIFICATION
9	10.30.19	PASCO COUNTY UTILITY REVIEW
10	07.15.20	PASCO COUNTY UTILITY REVIEW
12	09.09.20	OWNER MODIFICATION

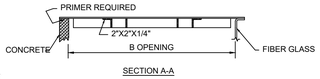
Pasco County Sheriff's Office
Forensic-Training-Shoot House-Hangar
Lucy Dobies Court - Land O' Lakes, Florida 34637

C4.1
ENLARGED UTILITY PLAN

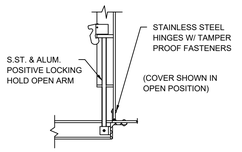
PUMP STATION DETAIL







SECTION A-A

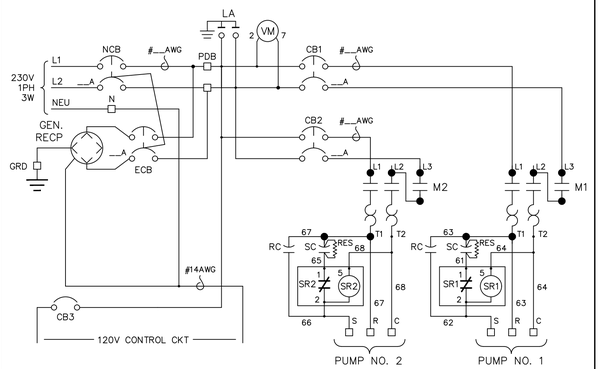


SECTION B-B

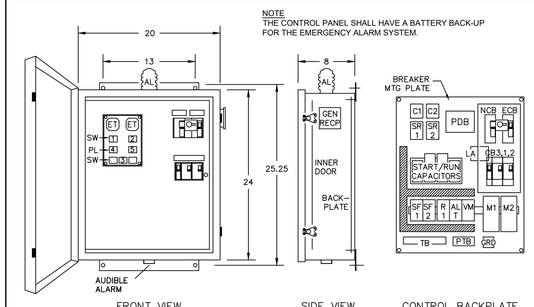
STANDARD FEATURES:

- AUTO-LOCK STAINLESS STEEL HOLD OPEN ARM WITH RELEASE HANDLE
- STAINLESS STEEL HINGES AND ATTACHING HARDWARE
- NON-CORROSIVE LOCKING BAR AND HANDLE
- VENT COUPLING ON REQUEST
- LARGER SIZES AVAILABLE FOR CONCRETE APPLICATIONS
- SINGLE LEAF CONSTRUCTION
- 300 LBS. PER SQ. FT. LOAD RATING
- 10 YEAR GUARANTEE

1 PHASE WIRING DIAGRAM

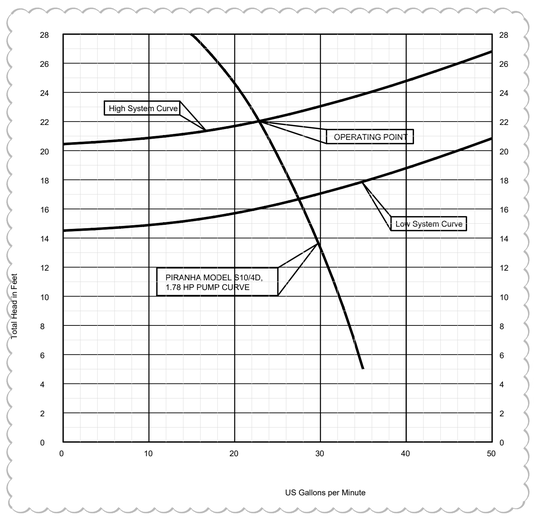


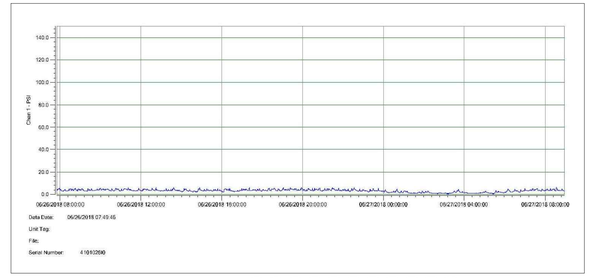
CONTROL PANEL



NOTES:
1—ENCLOSURE: NEMA 3R STAINLESS STEEL
2—MATERIAL: 14 GAUGE #304 STN STL.
3—CONSTRUCTION: FORMED AND WELDED
4—FINISH: NO. 2B BRUSHED
5—HINGE: STAINLESS STEEL
6—LATCHES: STAINLESS STEEL LOCKABLE

PUMP CURVE





PRESSURE TEST CONDUCTED ON 06.26.18

OPERATING POINT 22 GPM @ 22 TDH

PUMP SPECIFICATION

PUMP DESIGN
The pump(s) shall be capable of handling raw unscreened sewage, storm water, and other similar solids-laden fluids without clogging. The discharge base and elbow shall be permanently installed in the wet well and connected to the discharge piping. In order to prevent binding or separation of the pump from the guide rail system, the pump(s) shall connect to the guide rail base automatically and firmly, guided by one guide bar (two bars optional) extending from the top of the station to the discharge base elbow. Systems using guide cable in lieu of rigid guide bars or pipes shall not be considered acceptable. The sliding guide bracket shall be a separate part of the pumping unit, capable of being attached to standard ANSI or DIN pump flanges so that the base is interchangeable with other pumps and not limited to a specific pump. Non standard flange dimensions shall not be considered acceptable. There shall be no need for personnel to enter the wet well to remove or reinstall the pump(s). A field replaceable Nitrile rubber profile gasket or o-ring shall accomplish positive sealing of the pump flange/guide rail bracket to the discharge elbow. Metal to metal contact between the pump and discharge base elbow as a means of sealing shall not be considered acceptable. No portion of the pump shall bear directly on the floor of the sump. The guide rail system shall be available in an optional non-sparking version, approved by Factory Mutual for use in NEC Class 1, Division 1, Group C&D hazardous locations

PUMP CONSTRUCTION
Major pump components shall be of gray cast iron, ASTM A-48, Class 40, with smooth surfaces devoid of porosity or other irregularities. All exposed nuts and bolts shall be AISI type 316 stainless steel construction. All metal surfaces coming into contact with the pumped media (other than the stainless steel components) shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a high solids two part epoxy paint finish on the exterior of the pump.

Sealing design for the pump/motor assembly shall incorporate metal to metal contact between machined surfaces. Critical mating surfaces where a watertight seal is required shall be machined and fitted with Nitrile or Viton rubber O-rings. Sealing will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without requiring a specific torque limit. Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered adequate or equal. No secondary sealing compounds shall be used.

Impeller: The impeller shall be of gray cast iron, ASTM A-48, Class 40 and shall be of the semi-open, non-clogging dynamically balanced single vane design capable of passing a minimum of 3.1" diameter spherical solids. The impeller shall have a slip fit into the motor shaft and drive key ,and shall be fastened to the shaft by a stainless steel bolt which is mechanically prevented from loosening by a positively engaged ratcheting washer assembly.

Self Cleaning Wear Plate: (CB System) The pump shall be equipped with a self cleaning wear plate constructed from gray cast iron, ASTM A-48, Class 40. The wear plate shall be mounted to the volute with four stainless steel/brass adjusting screws to permit close tolerance adjustment between the wear plate and impeller for maximum pump efficiency. The wear plate shall be easily adjustable, without requiring disassembly of the pump. The wear plate shall be designed with a wave shaped inlet and an outward spiral V-shaped groove on the side facing the impeller, to shred and force stringy solids outward from the impeller and through the pump discharge. The use of non-adjustable wear rings s ¡ ¶ ¿ ° ' -hall not be considered equal.

Pump Volute: The pump volute shall be single piece gray cast iron, ASTM A48, Class 40, non-concentric design with centerline discharge. Passages shall be smooth and large enough to pass any solids which may enter the impeller. Minimum discharge size shall be as specified. The discharge flange design shall permit attachment to standard ANSI or DIN flanges/appurtenances.

Rotating Assembly: The rotating assembly (impeller, shaft and rotor) shall be dynamically balanced such that undue vibration or other unsatisfactory characteristics will not result when the pump is in operation.

Shaft: The pump shaft and motor shaft shall be an integral unit. Each shaft shall be of 420 stainless steel material and adequately designed to meet the maximum torque required at any normal start-up condition or operating point in the system. Maximum deflection shall not exceed .002" at the lower seal. Each pump shaft shall have a polished finish and have accurately machined shoulders to accommodate bearings, seals and impeller. Carbon steel or chrome plated shafts shall not be considered adequate or equal.

Mechanical Seals: Each pump shall be equipped with a tandem mechanical shaft seal system consisting of two totally independent seal assemblies. The seals shall operate in a lubricant reservoir that hydro-dynamically lubricates the lapped seal faces at a constant rate. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary industrial duty **silicon-carbide** seal ring and one rotating industrial duty **silicon-carbide** seal ring. The upper, secondary seal unit, located between the lubricant chamber and motor housing, shall contain one stationary **carbon** seal ring and one rotating seal ring made from corrosion resistant **Cr-steel**. Each seal interface shall be held in contact by its own spring system. The seals shall not require routine maintenance, or adjustment, and shall not be dependent on the direction of rotation for proper sealing. Each pump shall be provided with a lubricant chamber for the shaft sealing system which shall provide superior heat transfer and maximum seal cooling. The lubricant chamber shall be designed to prevent overfilling, and to provide lubricant expansion capacity. The drain and inspection plug shall have a positive anti-leak seal, and shall be easily accessible from the outside of the pump. The seal system shall not rely upon the pumped media for lubrication and shall not be damaged when the pump is run dry.

The following seal types shall not be considered acceptable or equal: Seals of proprietary design, or seals manufactured by other than major independent seal manufacturing companies. Seals requiring set screws, pins, or other mechanical locking devices to hold the seal in place, conventional double mechanical seals containing either a common single or double spring acting between the upper and lower seal faces, any system requiring a pressure differential to seat the seal and ensure sealing.

Bearings: Each pump shaft shall rotate on permanently lubricated, greased bearings. The upper bearing shall be a deep grooved ball bearing and the lower bearings shall be heavy duty double row angular contact ball bearing. Bearings shall be of sufficient size and properly spaced to transfer all radial and axial loads to the pump housing and minimize shaft deflection. L-10 bearing life shall be a minimum of 50,000 hours at flows ranging from ½ of BEP flow to 1½ times BEP flow (BEP is best efficiency point).

MOTOR
The motor housing shall be gray cast iron, ASTM A48 Class 40 and the motor shall be of the squirrel-cage induction shell type design, housed in an air filled, water tight chamber (NEMA B type) and shall be capable of continuous submerged operation underwater to a depth of 65 feet. The stator windings and stator leads shall be insulated with moisture resistant Class F insulation rated for 155oC (311 oF). The stator shall be heat-shrink fitted into the stator housing. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is unacceptable. The motor shall be designed for continuous duty handling pumped media of 40oC (104 oF) and capable of handling up to 12 evenly spaced starts per hour. The service factor (as defined by NEMA) shall be a minimum of 1.10 (1.0 for M90/4). The motor shall have a voltage tolerance of +/- 10% from nominal.

The rotor bars and short circuit rings shall be made of cast aluminum. The motor shall be designed for continuous duty, completely submerged or unsubmerged. For unsubmerged (dry pit) applications, a cooling jacket shall be fitted to the motor to allow the pumped fluid to be circulated around the motor for cooling with the provisions under the "Cooling System" section of this specification. The explosion proof variant shall be FM approved for use in NEC Class I, Division I, Groups C & D hazardous locations.

Cooling System: Each unit shall be able to be provided with an adequately designed cooling system. The cooling jacket shall surround the stator housing, thereby providing heat dissipation of the motor. Impeller back vanes shall provide the necessary circulation of the pumped media through the cooling jacket. The impeller and back plate interface shall incorporate dimensional tolerances designed to prevent damaging particles from entering the cooling jacket. In addition, the back of the impeller shall incorporate a cutter design which ensures that stringy or fibrous material can not enter the cooling jacket. The cooling jacket shall be a non-clog design by virtue of these features, and clean out ports on the cooling jacket shall **not** be required. Provisions for external cooling can be provided as an option.

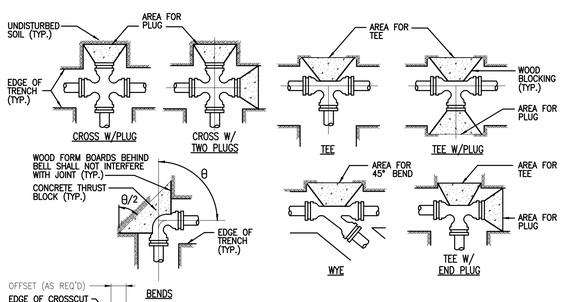
Thermal Protection: Each phase of the motor shall contain a bi-metallic temperature monitor in the upper portion of the stator windings. These thermal switches shall be connected in series and set to open at 140oC +/- 5oC. They shall be connected to the control panel, and used in conjunction with and supplemental to external motor overload protection.

Seal Failure Early Warning System: An electrical probe shall be provided in the oil chamber for detecting the presence of water in the oil chamber. This probe shall be provided for both standard and explosion proof versions. A solid-state device mounted in the pump control panel or in a separate enclosure shall send a low voltage, low amperage signal to the probe. If water enters the oil chamber, the probe shall signal the solid state relay in the control panel. The relay shall then energize a warning light on the control panel, or cause the pump to be shut down (optional). Float switches, dual probes, or any other monitoring devices located in the stator housing are not considered to be early warning systems, and shall not be considered equal.

Power Cables: The power cables shall be sized according to NEC and CSA standards and shall be of sufficient length to reach the junction box without requiring splices. The outer jacket of the cable shall be oil resistant chloroprene rubber, and shall be capable of continuous submerged operation underwater to a depth of 65 feet.

Cable Entry/Junction Chamber: The cable entry design shall not require specific torque requirements to insure a watertight seal. The cable entry shall consist of a cylindrical elastomer grommet, flanked by stainless steel washers. A cable cap incorporating a strain relief shall mount to the cable entry boss compressing the grommet ID to the cable while the grommet OD seals against the bore of the cable entry. The entry as part of the motor shall be FM approved for use in NEC Class I, Division I, Groups C & D hazardous locations. As an option a removable explosion proof junction chamber shall be available. The junction chamber with terminal board shall fit to the cable entry boss. The junction chamber shall be equipped with a removable cover allowing for cable removal or voltage change without opening the motor. The junction chamber shall be sealed from the motor by means of a sealing gland.

TYPICAL THRUST BLOCK DETAILS



SCHEDULE FOR THRUST BLOCK AREAS					
PIPE SIZE (INCHES)	90 BEND (SQ FT)	45 BEND (SQ FT)	22–1/2 BEND (SQ FT)	TEE & PLUG (SQ FT)	CROSS (SQ FT)
4 OR LESS	2.75	1.5	0.75	2.0	2.75
6	5.5	3.0	1.5	4.0	5.5

NOTES:
1. THRUST BLOCK BEARING AREAS SHALL BE POURED AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE ALL LOOSE MATERIAL AND EXTEND TO UNDISTURBED MATERIAL.
2. EXTEND THRUST BLOCK FULL LENGTH OF FITTINGS. JOINTS SHALL NOT BE COVERED BY THRUST BLOCKS. FITTINGS SHALL BE PROTECTED BY POLYETHYLENE FILM (8 MIL.) PRIOR TO PLACING CONCRETE THRUST BLOCK.
3. ROUGH BLOCKING FORMS SHALL BE USED ALONG SIDES OF THRUST BLOCKS, AS REQUIRED.
4. THRUST BLOCKS SHALL BE USED IN COMBINATION, AS REQUIRED, TO SUITE THE SPECIFIC FITTING ARRANGEMENT.
5. ALTERNATE DESIGNED RESTRAINING SYSTEMS SHALL BE PROVIDED WHERE STANDARD THRUST BLOCKING IS NOT SUITABLE AND/OR SOIL RESISTANCE BEARING IS LESS THAN 1500 PSF.
6. ALL WOOD BLOCKING SHALL BE PRESSURE TREATED WITH PRESERVATIVE.

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FL. LIC. #19241
DATE

NO.	DATE	REVISION
2	07.02.18	PASCO COUNTY UTILITY REVIEW
5	01.14.19	OWNER MODIFICATION

Pasco County Sheriff's Office
Forensic-Training-Shoot House-Hangar
Lucy Dobies Court - Land O' Lakes, Florida 34637

C4.2
PUMP STATION DETAILS

TESTING SCHEDULE GUIDE

ITEM	TEST TYPE	TEST I.D.	REQUIREMENTS	FREQUENCY
EMBANKMENT	MAXIMUM DENSITY OPTIMUM MOISTURE FIELD DENSITY	AASHTO T180 ASTM D1557 AASHTO T191, T204, T238 ASTM D1556, D2937, D2922	N/A 95% OF MAXIMUM DENSITY	PER SOIL TYPE ONE PER 2,500 S.F. HORIZONTALLY * ALTERNATING LIFTS (12")
UTILITY TRENCH BACKFILL UNDER ROADWAYS AND STRUCTURES	MAXIMUM DENSITY OPTIMUM MOISTURE FIELD DENSITY	AASHTO T180 ASTM D1557 AASHTO T191, T204, T238 ASTM D1556, D2937, D2922	N/A 95% OF MAXIMUM DENSITY	PER SOIL TYPE ONE PER 2,500 S.F. HORIZONTALLY * EVERY 2' VERTICALLY D2922 – AT LEAST ONE FOR EACH PIPE RUN
BACKFILL OF STRUCTURES	MAXIMUM DENSITY OPTIMUM MOISTURE FIELD DENSITY	AASHTO T180 ASTM D1557 AASHTO T191, T204, T238 ASTM D1556, D2937, D2922	N/A 95% OF MAXIMUM DENSITY	PER SOIL TYPE ONE PER 2,500 S.F. EVERY 2' VERTICALLY
SUBGRADE	BEARING VALUES MAXIMUM DENSITY OPTIMUM MOISTURE FIELD DENSITY & THICKNESS	LBR – FLA. D.O.T. AASHTO T180 ASTM D1557 AASHTO T191, T238 ASTM D1556, D2922	LBR = 40 MIN. N/A 98% OF MAXIMUM DENSITY	ONE PER SOIL TYPE CHECK POINT LBR AT 500 L.F. HORIZONTALLY ONE PER SOIL TYPE ONE PER 2,500 S.F. HORIZONTALLY
BASE	BEARING VALUES MAXIMUM DENSITY OPTIMUM MOISTURE THICKNESS FIELD DENSITY GRADATION ATTERBURG LIMITS	LBR – FLA. D.O.T. AASHTO T180 ASTM D1557 AASHTO T191, T238 ASTM D1556, D2922 AASHTO T27, T98 AASHTO T90 ASTM C136, D423, D424	LBR = 100 MIN. N/A 98% OF MAXIMUM DENSITY PER SPECIFICATIONS	ONE PER SOURCE OR AS MATERIAL CHANGES CHECK POINT LBR AT 500 L.F. HORIZONTALLY ONE PER SOURCE ONE PER 2,500 S.F. HORIZONTALLY ONE PER SOURCE
SOIL CEMENT BASE MIX DESIGN (TO BE USED IF SEPARATION BETWEEN SHWT AND BOTTOM OF BASE IS < 1.5')	PORTLAND CEMENT ASSOC. SPECIFICATIONS MAXIMUM DENSITY OPTIMUM MOISTURE COMPRESSIVE STRENGTH SPECIMENS TEST CORES FIELD DENSITY & THICKNESS	 AASHTO T134 (STANDARD) PORTLAND CEMENT ASSOC. SPECIFICATIONS PORTLAND CEMENT ASSOC. SPECIFICATIONS AASHTO T191, T238 ASTM D1556, D2922	PER SPECIFICATIONS N/A 300 PSI AT 7-DAYS TYPE DAILY ** 450 PSI AT 21-DAYS SET OF COMPRESSIVE ** 95% OF MAXIMUM DENSITY	ONE PER SOIL TYPE ONE PER SOIL TYPE DAILY ONE SET OF 3 PER SOIL TYPE ONE SET OF 3 PER SOIL TYPE ONE PER 2,500 S.F. HORIZONTALLY
ASPHALTIC CONCRETE	MATERIALS QUALITY BITUMEN CONTENT GRADATION FIELD DENSITY COMPACTION LOS ANGELES ABRASION THICKNESS	AASHTO T164 ASTM D2172 ASTM D2950-81 AASHTO T96-77 ASTM C131-81 N/A	PER SPECIFICATIONS 95% OF LAB DENSITY 95% OF MARSHALL MAXIMUM UNIT PER SPECIFICATIONS PER SPECIFICATIONS	ONE PER DAY ONE PER 2,500 S.F. HORIZONTALLY ONE PER SOURCE ONE PER 2,500 S.F.

NOTES:

* THE CONTRACTOR SHALL NOT PAVE OVER SOIL CEMENT BASE UNTIL A 30-DAY CURING HAS ELAPSED.

** MAXIMUM STRENGTH LIMITS, AS ESTABLISHED BY SOILS TESTING COMPANY, SHALL NOT BE EXCEEDED.

*** SHOULD ANY OF THE INFORMATION PROVIDED HEREIN CONFLICT WITH EITHER THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER, AND/OR THE GEOTECHNICAL REPORT, THEN THE AFOREMENTED RECOMMENDATIONS WILL SUPERCEDE THIS "TESTING SCHEDULE GUIDE".

GENERAL NOTES

A. THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO BIDDING AND DETERMINE THE EXACT LOCATION OF THE UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY SUNSHINE @ (800)432-4770 AND THE UTILITY COMPANIES IN THE AREA AT LEAST 48 HOURS BEFORE COMMENCING WORK. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED BEFORE COMMENCING CONSTRUCTION UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. COST TO BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION TO BE ALLOWED.

B. ALL WORK SHALL BE LEFT IN SUCH A MANNER THAT IT IS SAFE TO THE PUBLIC. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES. SIGNS AND BARRICADES TO BE ACCORDING TO F.D.O.T. MANUAL OF SAFE PRACTICES; REFERENCE F.D.O.T. INDEXES 600 THROUGH 650 AND 17349 PER ROADWAY AND TRAFFIC DESIGN STANDARDS LATEST EDITION OF D.C. INDEXES 100 THROUGH 116. THERE WILL BE NO ON–SITE BURNING.

C. ADDITIONAL CONTROL AND SCOPE OF WORK: THE CONTRACTOR SHALL PROVIDE SPRING ENGINEERING, INC. WITH AS–BUILT DRAWINGS AND SURVEYS UPON COMPLETION OF ALL WORK.

D. A SURVEYOR SHALL DO ALL BUILDING LAYOUT, CURB & ROADWAY, AND GRADE STAKING. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING ANY WORK. THE CONTRACTOR SHALL CONTACT THE ENGINEER'S OFFICE IMMEDIATELY ON ANY CONFLICTS ARISING DURING CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THESE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONSULT WITH THE ENGINEER FOR MAKING ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS; HOWEVER, THIS IN NO WAY RELIEVES THE CONTRACTOR OF HIS RESPONSIBILITY FOR CONSTRUCTING THE PROJECT TO ACCOMPLISH THE INTENT OF THE PLANS. ALL ELEVATIONS REFER TO NATIONAL GEODETIC VERTICAL DATUM OF 1929. MEAN SEA LEVEL = 0.00'

E. PERMITS: NO CONSTRUCTION SHALL COMMENCE UNTIL ALL APPLICABLE PERMITS HAVE BEEN APPROVED. A RIGHT–OF–WAY USE PERMIT IS REQUIRED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY WITHIN THE RIGHT–OF–WAY, AND NO IRRIGATION SYSTEM OR LANDSCAPING SHALL BE INSTALLED IN ANY PUBLIC RIGHT–OF–WAY WITHOUT ISSUANCE OF APPROPRIATE PERMIT. ALL PROPOSED SIGNS MUST BE APPLIED FOR, APPROVED AND PERMITTED ON AN INDIVIDUAL BASIS APART FROM ANY ULTIMATELY APPROVED SITE PLAN; APPROVAL OF THIS SITE PLAN DOES NOT CONSTITUTE APPROVAL OF ANY SIGN.

F. STRIPING: HANDICAPPED PARKING SPACES WILL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUTE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, OR OTHER APPLICABLE STANDARDS. ALL ON–SITE PARKING SPACES SHALL BE STRIPED AND SIGNED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. PARKING SPACES, DIRECTIONAL ARROWS, AND STOP BARS SHALL BE STRIPED IN WHITE. IT SHALL BE THE OWNER/DEVELOPERS RESPONSIBILITY TO PROPERLY SIGN AND STRIPE THE SITE IN ACCORDANCE WITH APPLICABLE STANDARDS.

G. CONCRETE: CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. AGGREGATE SHALL CONFORM TO ASTM C33. WIRE FABRIC SHALL CONFORM TO ASTM A185. READY MIXED CONCRETE SHALL CONFORM TO ASTM C–94. SIX INCH MESH, 10 GAUGE WIRE FABRIC SHALL BE USED IN SLABS THICKER THAN FOUR INCHES. STANDARD THICKNESS SHALL BE FOUR INCHES, EXCEPT AT DRIVEWAYS WHERE THE THICKNESS SHALL BE SIX INCHES. SURFACES SHALL BE FREE FROM TROWEL OR MACHINE MARKS. SURFACE VARIATIONS SHALL NOT EXCEED 1/4 INCH UNDER A 10 FOOT STRAIGHTEDGE. EDGE OF SLABS SHALL HAVE A SMOOTH FINISH. SIDEWALKS SHALL HAVE A BROOM FINISH.

H. UTILITIES: ALL UNDERGROUND UTILITIES MUST BE INSTALLED BEFORE BASE AND SURFACE COURSES ARE CONSTRUCTED. IT IS THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL UTILITIES IN ACCORDANCE WITH LOCAL CODES, WHETHER INDICATED ON THE PLANS OR NOT. CHECK WITH THE LOCAL GOVERNMENT PRIOR TO BID SUBMISSION. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MINIMIZE INTERRUPTIONS OF EXISTING UTILITY SERVICE DURING CONSTRUCTION AND CONNECTION OF PROPOSED SERVICE LINES. CONFLICTS BETWEEN WATER LINES AND STORM/SANITARY SEWER SYSTEMS ARE TO BE RESOLVED BY ADJUSTING WATER LINES AS NECESSARY. CONTRACTOR SHALL MAINTAIN A MINIMUM OF TEN FOOT (10') HORIZONTAL SEPARATION OR 18" VERTICAL SEPARATION WHERE UNDERGROUND SERVICES CONFLICT. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES AND ALL LENGTHS ARE PLUS OR MINUS.

I. WATERMAINS: ALL NEW WATERMAINS, PIPES, FITTINGS, VALVES, PACKING AND JOINTING MATERIALS SHALL CONFORM WITH ALL APPLICABLE AWWA STANDARDS AND THE STATE PLUMBING CODE AND SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS AND/OR THE MANUFACTURER'S RECOMMENDED PROCEDURES. ALL WATER MAIN PIPES AND FITTINGS SHALL CONTAIN NO MORE THAN EIGHT PERCENT LEAD. ALL STONES FOUND IN WATER MAIN TRENCHES SHALL BE REMOVED TO A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF THE PIPE. CONTINUOUS AND UNIFORM BEDDING TO BE PROVIDED AND BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE AND FITTINGS AND TWELVE INCHES (12") ABOVE THE TOP OF THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. ALL NEW WATER MAINS SHALL BE PRESSURE AND LEAK TESTED PER AWWA STANDARD C600 AND DISINFECTED PER AWWA STANDARD C651 AND RULE 62.555.345,F.A.C.. ALL FOUR INCH (4") AND LARGER WATER MAINS TO BE C–900 P.V.C. AND ALL WATER MAINS SMALLER THAN 4" TO BE SCHEDULE 40 P.V.C. WATER MAIN TO BE 2.5' (MIN.) BELOW PROPOSED GRADE.

J. SANITARY SEWERS: ALL SANITARY SEWER MAINS TO BE SDR–35 PVC.

K. TREE BARRICADES AND EROSION CONTROL: ALL EROSION CONTROL MEASURES (SILT BARRIERS) AND TREE BARRICADES MUST BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND REMAIN IN PLACE THROUGHOUT CONSTRUCTION. ENCROACHMENT OR FAILURE TO MAINTAIN THESE BARRICADES COULD RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION. SILTATION BARRIERS SHALL BE MAINTAINED AND REPAIRED AT THE END OF EACH WORKING DAY. HAY BALES SHALL BE INSTALLED ONCE PERIMETER GRADING IS COMPLETED. STORMWATER FACILITIES SHALL HAVE HAY BALES PLACED AROUND THEIR ENTRANCES TO PREVENT SEDIMENT FROM BEING TRANSPORTED INTO THE STORMWATER SYSTEM. HAY BALES SHALL BE PLACED ALONG THE PERIMETER OF ALL DOWNSTREAM BOUNDARIES TO PROVIDE FILTRATION OF RUNOFF DURING CONSTRUCTION. THE HAY BALES SHALL REMAIN IN PLACE UNTIL THE ENGINEER HAS APPROVED THE VEGETATIVE COVER ALONG EMBANKMENTS PROVIDING RUNOFF TO THE PERIMETER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN SOIL EROSION CONTROL DEVICES. IF AT ANY TIME DRAINAGE STRUCTURES OR EROSION CONTROL DEVICES BECOME DAMAGED OR INOPERABLE, IT IS THE CONTRACTORS RESPONSIBILITY TO REPAIR THEM. THE CONTRACTOR IS EXPECTED, AT THE END OF EACH DAY, TO HAVE THE SITE GRADED IN SUCH A WAY THAT ADJACENT PROPERTIES ARE NOT ADVERSELY IMPACTED BY EROSION OR SEDIMENT LEAVING THE SITE. CLEARED AREAS SHALL BE STABILIZED EARLY IN THE CONSTRUCTION PROCESS AND IF NATURAL PRECIPITATION DOES NOT PROVIDE PERIODIC WETTING OF THE SITE, THEN THE CONTRACTOR SHALL PROVIDE A METHOD OF SPRAYING THE SITE TO PREVENT WIND EROSION. CONTRACTOR SHALL CLEAR ONLY THAT AREA SHOWN TO BE CLEARED ON THE PLANS. CARE SHALL BE TAKEN TO DISTURB THE EXISTING VEGETATION IN ONLY THOSE AREAS UNDER CONSTRUCTION AT THAT TIME. ALL CLEAR SITE AREAS SHALL BE KEPT FREE OF ANY SIGNAGE, PLANTINGS, TREES, ETC. IN EXCESS OF THREE–AND–A–HALF (3 1/2) FEET IN HEIGHT. DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE LOCAL GOVERNMENT. ALL TREE ROOTS EXISTING WITHIN APPROVED IMPROVEMENT AREAS AND ORIGINATING FROM A PROTECTED TREE SHALL BE SEVERED CLEAN AT THE LIMITS OF THE PRESERVED AREA. ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE PRUNED IN ACCORDANCE WITH THE NATIONAL ARBORIST ASSOCIATION (NAA) PRUNING STANDARDS.

L. GRADING AND BACKFILL: THE GRADING SHOWN ON THESE PLANS IS INTENDED TO EXPRESS THE GENERAL GRADING INTENT OF THE PROJECT. THE CONTRACTOR IS EXPECTED TO GRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE IN ALL AREAS THROUGHOUT THE SITE. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CONTOURS OR SPOT ELEVATIONS AS SHOWN ON THE PLANS TO ACCOMPLISH THE GRADING INTENT. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING HAS BEEN COMPLETED. CONTRACTOR TO GRADE PROPERTY SO THAT GRADING MEETS ADJACENT PROPERTY AND RIGHT – OF – WAY ELEVATIONS. CONTRACTOR SHALL NOTIFY THE OWNER AND SEI PRIOR TO DEMOBILIZATION OF GRADING EQUIPMENT TO DETERMINE THAT THE GRADING INTENT HAS BEEN ACHIEVED. ALL FILL MATERIAL SHALL BE SOIL OR SOIL–ROCK MIXTURE WHICH IS FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCE. IT SHALL BE PREDOMINATELY GRANULAR WITH A MAXIMUM PARTICLE SIZE OF TWO INCHES AND A PLASTICITY INDEX OF 12 OR LESS. ALL BACKFILL WITHIN THE ROADWAY, OVER ANY PIPE THAT IS TO BE INSTALLED UNDER THE ROADWAY OR WITHIN EMBANKMENTS, ETC. IS TO BE COMPACTED TO 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO AND PER F.D.O.T. SPECIFICATIONS, SECTION 125.8.3, LATEST EDITION.

M. DRAINAGE: ALL DRAINAGE STRUCTURES MUST BE CONSTRUCTED PER FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN STANDARDS. MITERED END SECTION AS PER D.O.T. INDEX NO. 272 AND NO. 273. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MEASUREMENTS ARE TO THE CENTER OF STRUCTURES. OWNER SHALL MAINTAIN RETENTION AREAS.

N. DRIVES: ALL DRIVES SHALL BE IN ACCORDANCE WITH FDOT REQUIREMENTS.

O. PAVING: ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTH TRANSITION WITH NO BREAKS IN GRADE AND NO STEEP OR REVERSE CROSS SLOPES. AT PAVING APPROACHES TO AND INTERSECTIONS WITH EXISTING GRADES, IT MAY BE NECESSARY AND ADVISABLE TO MAKE MINOR LOCAL FIELD ADJUSTMENTS TO ACCOMPLISH THE PURPOSES OUTLINED. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE POSITIVE DRAINAGE AND SEI SHALL BE CONSULTED SO THAT WE MAY MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTIONS TO ACCOMPLISH THE INTENT OF THE PLANS. ASPHALTIC CONCRETE TYPE S–1, SHALL CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION. FOR MATERIALS AND METHOD OF CONSTRUCTION. ALL ROADWAY BASES SHALL BE PRIMED AND, IF REQUIRED, A TACK COAT SHALL BE APPLIED. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. TEST REPORTS FOR SUBGRADE, BASE, ASPHALT AND BASE CORE AND CONCRETE SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. SEE SPECIFICATIONS FOR SPECIFIC TESTING REQUIREMENTS.

P. LANDSCAPING: ALL PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER AS GIVEN IN GRADES AND STANDARDS FOR NURSERY PLANTS, PART I, 1963 AND PART II, STATE OF FLORIDA DEPT. OF AGRICULTURE, TALLAHASSEE. ALL PLANT MATERIAL WILL BE GUARANTEED FOR ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE BY ARCHITECT. PLANTS AND TREES ARE LOCATED BY SCALING OFF PLANS. INSTALLER SHALL INSPECT SITE PRIOR TO BEGINNING PLANTING OPERATIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES. INSTALLER SHALL IMMEDIATELY NOTIFY ARCHITECT IF ANY CONFLICTS OCCUR BETWEEN PROPOSED LOCATION OF TREES CALLED FOR ON THE PLANS AND ANY UNDERGROUND UTILITIES OR SUBSURFACE STRUCTURES. INSTALLER SHALL NOTIFY ARCHITECT OF ANY CONDITION THAT WOULD PREVENT THE HEALTHY GROWTH OF PLANT SPECIES CALLED FOR ON THESE PLANS PRIOR TO CONTRACT AWARD. ALL LANDSCAPE AREAS AND GRADED SWALES ARE TO BE SODDED WITH FLORATAM UNLESS NOTED OTHERWISE. THE GROUND IS TO BE PROPERLY PREPARED AND FERTILIZED PRIOR TO LAYING SOD. THERE SHALL BE A CRISP LINE SEPARATING PLANT BEDS FROM ALL SOD AREAS. SOD TO BE STAKED AS NECESSARY TO PREVENT EROSION. CONTRACTOR TO SOD ALL DISTURBED AREAS DUE TO PROPOSED CONSTRUCTION.

Q. PLANTING SOILS: ALL PLANTING PITS SHALL BE BACKFILLED WITH TOPSOIL MIX CONSISTING OR FIFTY (50) PERCENT SAND, FORTY (40) PERCENT MUCK AND TEN (10) PERCENT HUMUS OR PEAT, BY VOLUME, WELL MIXED WITH APPROPRIATE FERTILIZER ADDED.

R. MULCH: ALL EXPOSED AREAS IN PLANTING BEDS, INCLUDING HEDGE ROWS, SHALL BE KEPT WEED FREE AND MULCHED TO A MINIMUM OF THREE (3) INCHES DEPTH, EXCEPT THAT TWO (2) INCHES SHALL BE REQUIRED IN ANNUAL BEDS. MULCH SHALL BE REPLENISHED, AS NEEDED, TO MEET THIS REQUIREMENT.

SEPARATION FOR WATER/ SEWER CONFLICTS

1. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS SHOULD ALWAYS CROSS UNDER WATER MAINS. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.

   WHERE SANITARY SEWERS, FORCE MAINS AND STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT THE CROSSING.

   WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER THE WATER MAIN, THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES AND 10 FEET BETWEEN JOINTS SHALL BE REQUIRED.

   ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).

   WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP AND THE CROSSING SHALL BE ARRANGED TO MEET THE REQUIREMENTS ABOVE.

2. A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER & WATER MAIN IN PARALLEL INSTALLATION WHENEVER POSSIBLE.

   IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN 10 FOOT HORIZONTAL SEPARATION THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.

   WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

3. ALL DIP SHALL BE CLASS 50 OR HIGHER. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE AS REQUIRED BY THE PERMITTING UTILITIES DEPARTMENT.

PASCO COUNTY NOTES

1. All utility construction shall comply with the Pasco County Standards for Design and Construction of Water and Wastewater Facilities Specifications, latest edition.
2. All on–site water and sewer facilities shall be owned and maintained by the owner–developer.
3. Installation of fuel storage tanks requires review and approval by the Fire Marshal and the issuance of a separate building permit. Approval of the site plan does not constitute approval of the location of the fuel tank.
4. All proposed signs must be applied for, approved, and permitted on an individual basis apart from any ultimately–approved site plan. Approval of this site plan does not constitute approval of any sign age.
5. Handicap parking spaces will be properly signed and striped in accordance with Florida Statute 316, the Manual on Uniform Traffic Control Devices, or other applicable standards.
6. The architect–engineer certifies that the site has been designed in accordance with the Americans with Disabilities Act.
7. All on–site parking spaces will be striped and signed in accordance with the manual on Uniform Traffic Control Devices, latest edition. Parking spaces, directional arrows, and stop bars shall be striped in WHITE. It shall be the owner/developers' responsibility to properly sign and stripe the site in accordance with applicable standards.
8. The owner/developer acknowledges that this approval does not include any work in County right–of–way. All right–of–way work shall be a function of an approved Pasco County Right–of–Way Use Permit.
9. All clear–site areas shall be kept free of any sign age, plantings, trees, etc. in excess of three–and–a–half (3¢) feet in height.
10. No irrigation system or landscaping shall be installed in any County or State right–of–way without issuance of appropriate right–of–way Use Permit.
11. The owner/developer acknowledges that the site and its subsequent building permits shall comply with all rezoning/MPUD/PUD conditions.
12. All structures, including buffer walls, retaining walls, signage, etc. require separate building permits.
13. If a project site contains an easement, especially a power company easement, a letter of no objection is required from the easement holder. by signing and sealing this plan the engineer of record is attesting that he/she has identified and accurately shown all easements of record on the plans.

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PHONE: (813) 988-0727

J.S.NAGAMIA, P.E.
FL. LIC. #19241
DATE

NO.	DATE	REVISION
10	12.19.19	COUNTY REVIEW

Pasco County Sheriff's Office
Forensic-Training-Shoot House-Hangar
Lucy Dobies Court - Land O' Lakes, Florida 34637

C5.0
GENERAL NOTES